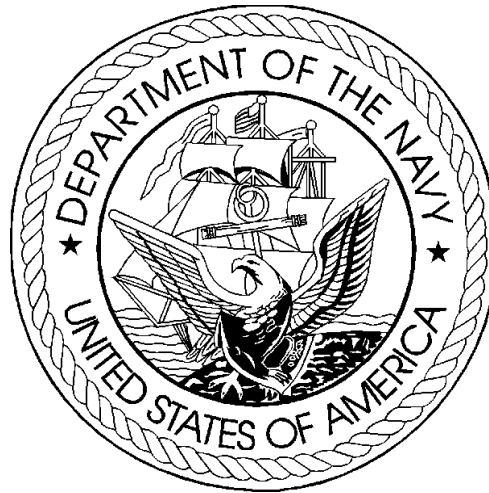


# DEPARTMENT OF THE NAVY FY 1999 AMENDED BUDGET ESTIMATES



## JUSTIFICATION OF ESTIMATES FEBRUARY 1998

### WEAPONS PROCUREMENT, NAVY BUDGET ACTIVITY 2

UNCLASSIFIED  
Department of the Navy  
FY 1999 Procurement Program

Exhibit P-1

APPROPRIATION: 1507N Weapons Procurement, Navy

DATE: 01/23/98

LINE NO	ITEM NOMENCLATURE	IDENT CODE	(DOLLARS) FY 1999 UNIT COST	TOA, \$ IN MILLIONS					
				-----FY 1997-----		-----FY 1998-----		-----FY 1999-----	
				QUANTITY	COST	QUANTITY	COST	QUANTITY	COST
BUDGET ACTIVITY 02: Other Missiles									
Strategic Missiles									
4	2101 Tomahawk	A		155	102.2	65	50.0	129.8	U
5	2307 ESSM	B	1,274,000		-		10.3	28	35.7 U
Tactical Missiles									
6	2206 AMRAAM	A	544,704	100	50.3	120	55.3	115	62.6 U
7	2230 JSOW	B	381,729	100	81.0	135	62.0	328	125.2 U
8	2234 Standard Missile	A	1,880,850	127	209.4	114	176.4	120	225.7 U
9	2242 RAM	A	447,660	135	46.9	100	41.0	100	44.8 U
10	2254 Hellfire	A			-		19.5		- U
11	2260 Penguin	A			6.9		7.3		- U
12	2280 Aerial Targets	A			73.9		64.0		75.5 U
13	2285 Drones and Decoys	A			17.1		.3		.3 U
14	2290 Other Missile Support	A			15.5		17.8		15.2 U
Modification Of Missiles									
15	2301 Tomahawk Mods	A			8.1		-		- U
16	2304 Sparrow Mods	A			2.5		-		- U
17	2315 Sidewinder Mods	A			2.1		.3		- U
18	2326 Harpoon Mods	A			40.3		30.0		39.5 U
19	2356 Standard Missiles Mods	A			16.9		49.7		45.3 U
Support Equipment And Facilities									
20	2420 Weapons Industrial Facilities	A			33.4		29.8		27.1 U

## UNCLASSIFIED

Department of the Navy

FY 1999 Procurement Program

Exhibit P-1

APPROPRIATION: 1507N Weapons Procurement, Navy

DATE: 01/23/98

LINE NO	ITEM NOMENCLATURE	IDENT CODE	(DOLLARS) FY 1999 UNIT COST	TOA, \$ IN MILLIONS						S E C
				-----FY 1997-----		-----FY 1998-----		-----FY 1999-----		
				QUANTITY	COST	QUANTITY	COST	QUANTITY	COST	
21	2430 Fleet Satellite Comm (MYP) (Space)	A			110.1		-			- U
	Ordnance Support Equipment									
22	2500 Ordnance Support Equipment	A			14.1		5.1		6.2	U
	TOTAL Other Missiles				830.6		618.9		832.9	

Weapons Procurement, Navy  
Program and Financing (in Thousands of dollars)

		Budget Plan (amounts for PROCUREMENT actions programed)			Obligations		
Identification code	17-1507-0-1-051	1997 actual	1998 est.	1999 est.	1997 actual	1998 est.	1999 est.
Program by activities:							
Direct program:							
00.0101	Ballistic missiles	314,815	269,834	323,650	366,815	286,465	292,984
00.0201	Other missiles	830,648	618,864	832,908	926,354	600,517	740,014
00.0301	Torpedoes and related equipment	108,108	92,621	97,837	100,236	111,289	105,517
00.0401	Other weapons	36,636	85,022	27,232	34,966	73,804	39,515
00.0601	Spares and repair parts	41,809	21,422	45,918	47,140	31,335	46,165
00.9101	Total direct program	1,332,016	1,087,763	1,327,545	1,475,511	1,103,410	1,224,195
01.0101	Reimbursable program	21,000	74,800	74,800	243	95,800	74,800
10.0001	Total	1,353,016	1,162,563	1,402,345	1,475,754	1,199,210	1,298,995
Financing:							
Offsetting collections from:							
11.0001	Federal funds(-)	-21,000	-74,800	-74,800	-15,784	-74,800	-74,800
17.0001	Recovery of prior year obligations				-12,077		
Unobligated balance available, start of year:							
21.4002	For completion of prior year budget plans				-448,823	-311,568	-274,920
21.4003	Available to finance new budget plans	-16,000	-6,726		-16,000	-6,726	
21.4009	Reprogramming from/to prior year budget plan	-21,378					
22.1001	Unobligated balance transferred to other acco		6,726			6,726	
Unobligated balance available, end of year:							
24.4002	For completion of prior year budget plans				311,568	274,920	378,270
24.4003	Available to finance subsequent year budget	6,726			6,726		
25.0001	Unobligated balance expiring	21,378			21,378		
39.0001	Budget authority	1,322,742	1,087,763	1,327,545	1,322,742	1,087,763	1,327,545
Budget authority:							
40.0001	Appropriation	1,364,231	1,102,193	1,327,545	1,364,231	1,102,193	1,327,545
40.7601	Reduction pursuant to P.L. 105-56 (-), 8041		-21,230			-21,230	
41.0001	Transferred to other accounts (-)	-41,489			-41,489		
42.0001	Transferred from other accounts		6,800			6,800	
43.0001	Appropriation (adjusted)	1,322,742	1,087,763	1,327,545	1,322,742	1,087,763	1,327,545

Weapons Procurement, Navy  
Program and Financing (in Thousands of dollars)

		Budget Plan (amounts for PROCUREMENT actions programed)			Obligations		
Identification code	17-1507-0-1-051	1997 actual	1998 est.	1999 est.	1997 actual	1998 est.	1999 est.
Relation of obligations to outlays:							
71.0001	Obligations incurred				1,459,970	1,124,410	1,224,195
72.1001	Orders on hand, SOY				-37,434	-34,608	-34,608
72.4001	Obligated balance, start of year				3,286,784	2,765,572	2,270,295
74.1001	Orders on hand, EOY				34,608	34,608	34,608
74.4001	Obligated balance, end of year				-2,765,572	-2,270,295	-2,109,757
77.0001	Adjustments in expired accounts (net)				15,891		
78.0001	Adjustments in unexpired accounts				-12,077		
90.0001	Outlays (net)				1,982,170	1,619,687	1,384,733

Weapons Procurement, Navy  
Object Classification (in Thousands of dollars)

Identification code	17-1507-0-1-051	1997 actual	1998 est.	1999 est.
-----				
Direct obligations:				
122.001	Transportation of things	2,566	2,008	2,028
125.101	Advisory and assistance services	23,256	24,591	24,701
	Purchases goods/services (inter/intra) Fed accounts			
125.303	Purchases from revolving funds	200,392	203,192	179,946
126.001	Supplies and materials	78,820	70,461	82,862
131.001	Equipment	1,170,477	803,158	934,658
		-----	-----	-----
199.001	Total Direct obligations	1,475,511	1,103,410	1,224,195
Reimbursable obligations:				
226.001	Supplies and materials	243	95,800	21,900
231.001	Equipment			52,900
		-----	-----	-----
299.001	Total Reimbursable obligations	243	95,800	74,800
999.901	Total obligations	1,475,754	1,199,210	1,298,995
-----				

Comparison of FY 1998 Program Requirements as Reflected  
in the FY 1998 Budget with FY 1998 Program Requirements as  
Shown in FY 1999 Budget (In Thousands of Dollars)

	FY 1998 Total Program Requirements <u>Per FY 1998 Budget</u>	FY 1998 Program Requirements <u>Per FY 1999 Budget</u>	Increase (+) or Decrease (-)
Ballistic Missiles	341,412	269,834	-71,578
Other Missiles	612,993	618,864	+5,871
Torpedoes and Related Equipment	95,715	92,621	-3,094
Other Weapons	59,230	85,022	+25,792
Spares and Repair Parts	26,943	21,422	-5,521
Subtotal Direct Program	1,136,293	1,087,763	-48,530
Reimbursable	74,800	74,800	-
Total Fiscal Year	1,211,093	1,162,563	-48,530

## Explanation of Changes in FY 1998 Program Requirements

### 1. Ballistic Missiles (-\$71.6 million)

Decrease reflects Congressional undistributed and inflation reductions (-\$6.6 million) and a program reduction of 2 Trident II missiles (-\$65.0 million) to slow the production rate of Trident II missiles specifically earmarked for the D5 Backfit submarines.

### 2. Other Missiles (+\$5.9 million)

Changes include Congressional adjustments to JSOW (+\$5.0 million), Standard Missile (-\$15.4 million), Hellfire (+\$20.0 million), Penguin (+\$7.5 million), Aerial Targets (-\$7.0 million), ESSM (-\$5.0 million), Standard Missile Modifications (+\$15.3 million), and Weapons Industrial Facility (-\$4.5 million). Reprogrammings requiring Congressional approval include the SLAM-ER program (+\$9.0 million) and RAM (-\$2.0 million) are also part of the change. Adjustments also include Congressional undistributed general and inflation reductions (-\$17.0 million).

### 3. Torpedoes and Related Equipment (-\$3.1 million)

Changes include Congressional undistributed general and inflation reductions (-\$2.9 million) and a reprogramming requiring Congressional approval to the First Destination Transportation program (-\$0.2 million).

### 4. Other Weapons (+\$25.8 million)

Changes include Congressional adjustments for the Close-In-Weapons-System (+\$15.0 million), 5/54 Gun Mount Modifications (+\$10.0 million), and Pioneer (+\$3.0 million) and Congressional undistributed reductions (-\$2.2 million).

### 6. Spares & Repair Parts (\$-5.5 million)

Changes include adjustments for Congressional reductions (-\$5.0 million) and undistributed Congressional reductions (-\$.5 million).



Comparison of FY 1998 Financing as Reflected in the FY 1998 Budget  
with FY 1998 Financing as Shown in FY 1998 Budget  
(In Thousands of Dollars)

	FY 1998 Financing Per <u>FY 1998 Budget</u>	FY 1998 Financing Per <u>FY 1999 Budget</u>	Increase (+) Decrease (-)
Program Requirements (Total)			
Program Requirements (Direct)	(1,136,293)	(1,087,763)	(-48,530)
Program Requirements (Reimb)	(74,800)	(74,800)	
Less:			
Anticipated Reimbursements	74,800	74,800	-
Add:			
Unob bal avail, start of year to finance new budget plans		-6,726	-6,726
Unob bal transferred to other accts		6,726	6,726
Appropriation Adjusted	1,136,293	1,087,763	-48,530
Budget Authority:			
FY 1998 DoD Appropriations Act	1,136,293	1,102,193	-34,100
Reduct Pursuant to P. L. 105-56		-21,230	-21,230
Transferred from other accounts		6,800	+6,800
Appropriation (Adjusted)	1,136,293	1,087,763	-48,530

Explanation of Changes in Financing

The \$48.5 million change in program financing is the net result of Congressional specific (-\$34.1 million) and undistributed general reductions (-\$21.2 million); and Prior Approval Congressional reprogrammings associated with a more cost efficient procurement profile for the SLAM-ER program (+\$9.0 million), and funding from RAM (-\$2.0 million) and First Destination Transportation (-\$0.2 million) funding to fund emergent DOD requirements.

Comparison of FY 1997 Program Requirements as Reflected  
in the FY 1998 Budget with FY 1997 Program  
Requirements as Shown in FY 1999 Budget (In Thousands of Dollars)

	FY 1997 Total Program Requirements <u>Per FY 1998 Budget</u>	FY 1997 Total Program Requirements <u>Per FY 1999 Budget</u>	Increase (+) or Decrease (-)
Ballistic Missiles	316,332	314,815	-1,517
Other Missiles	844,202	830,648	-13,554
Torpedoes and Related Equipment	120,594	108,108	-12,486
Other Weapons	30,815	36,636	+5,821
Spares and Repair Parts	46,490	41,809	-4,681
Subtotal Direct Program	1,358,433	1,332,016	-26,417
Reimbursable	74,800	21,000	-53,800
Total Fiscal Year	1,433,233	1,353,016	-80,217

## Explanation of Changes in FY 1997 Program Requirements

1. Ballistic Missiles (-\$1.5 million)

Change is a result of revised economic assumption reflected in the FY 1997 Supplemental Appropriation (-\$1.3 million) and minor below threshold reprogramming actions (-\$0.2 million).

2. Other Missiles (-\$13.6 million)

Change reflects a reduction to AMRAAM (-\$4.2 million) to fund the AEGIS Baseline Consolidation effort; and a net increase to fund additional MA-31 Aerial Target procurement (\$1.5 million). Adjustments were also associated with revised economic assumptions reflected in the FY 1997 Supplemental Appropriation (-\$3.6 million), and minor below threshold reprogramming actions.

3. Torpedoes and Related Equipment (-\$12.5 million)

Change reflects minor below threshold reprogrammings (-\$9.4 million), and reductions associated with the revised economic assumptions reflected in the FY 1997 Supplemental appropriation (-\$0.5 million). Reduction also include funding reprogrammed to support the AEGIS Baseline Consolidation effort (-\$2.5 million).

4. Other Weapons (+\$5.8 million)

Change reflects minor below threshold reprogrammings (+\$6.0 million) and revised economic assumption reflected in the FY 1997 Supplemental Appropriation (-\$0.1 million).

6. Spares & Repair Parts (-\$4.7 million)

Change reflects minor below threshold reprogrammings (-\$4.5 million) and revised economic assumptions reflected in the FY 1997 Supplemental Appropriation (-\$0.2 million).

Comparison of FY 1997 Financing as Reflected in the FY 1998 Budget  
with FY 1997 Financing as Shown in FY 1999 Budget  
(In Thousands of Dollars)

	FY 1997 Financing Per FY 1998 Budget	FY 1997 Financing Per FY 1999 Budget	Increase (+) Decrease (-)
Program Requirements (Total)	1,433,233	1,353,016	-80,217
Program Requirements (Direct)	(1,358,433)	(1,332,016)	(-26,417)
Program Requirements (Reimb)	(74,800)	(21,000)	(-53,800)
Less:			
Anticipated Reimbursements	-74,800	-21,000	-53,800
Add:			
Federal Funds (-):	-	-21,000	-21,000
Available to finance new budget plans	-	-16,000	-16,000
Reprogrammed from/to prior year budget plan:	-	-21,378	-21,378
Available to finance subsequent year budget:	-	6,726	+6,726
Unobligated balance expiring	-	21,378	+21,378
Appropriation Adjusted	1,358,433	1,322,742	-35,691
Budget Authority:			
FY 1997 DoD Appropriations Act	1,389,913	1,364,231	-25,682
Reduction pursuant to P.L. 104-208, 8037 (h)	-3,682	-	+3,682
Transferred from other accts	-	-	-
Transferred to other accounts	-27,798	-41,489	-13,691
Appropriation (Adjusted)	1,358,433	1,322,742	-35,691

Explanation of Changes in Financing

Primary changes in program financing are a result of reductions associated with revised economic assumptions reflected in the FY 1997 Supplemental Appropriation (-\$5.7 million), transfers to other accounts (-\$13.7 million), and funding reprogrammed for AEGIS Baseline Consolidation efforts (-\$6.7 million).

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: <b>Feb-98</b>	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b>							P-1 ITEM NOMENCLATURE <b>TOMAHAWK (J2EL)(PEO(CU))(BLI: 210100)</b>					
Program Element for Code B Items: <b>BA2/OTHER MISSILES</b>							Other Related Program Elements					
	Prior Years	ID Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	3,974		107	155	65	114	141	132	113	223	N/A	5,024
COST (\$M)	\$7,276.5		\$113.2	\$102.2	\$50.0	\$129.8	\$127.4	\$120.5	\$106.1	\$164.5	N/A	\$8,190.0
Initial Spares (\$M)	\$297.1		\$6.6	\$4.8	\$1.4	\$3.2	\$0.6	\$0.5	\$0.4	\$0.6	N/A	\$315.1
Total (\$M)	\$7,573.6		\$119.8	\$107.0	\$51.4	\$133.0	\$128.0	\$121.0	\$106.5	\$165.1	N/A	\$8,505.4
Unit Cost (\$M)	1.906		1.119	0.690	0.791	N/A	N/A	N/A	N/A	N/A	N/A	1.693
<p>Tomahawk provides an attack capability against targets at sea (Antiship Tomahawk) and on land (Land Attack Tomahawk), and can be launched from both surface ships (RGM) and submarines (UGM). The Land attack version can be fitted with either conventional high explosives, nuclear warheads or submunition dispenser.</p> <p>Tomahawk consists of four variants: (1) RGM/UGM-109A, Land Attack Nuclear; (2) RGM/UGM-109B, Antiship; (3) RGM/UGM-109C, Land Attack Conventional; (4) RGM/UGM-109D, Land Attack Submunition Dispenser.</p> <p>The antiship version has a modified HARPOON missile guidance system. This system permits firing in the general direction of any enemy warship at low altitude to avoid detection by radar. At a programmed distance, the missile commences a search to seek out and acquire the target ship with active radar.</p> <p>The land-attack version has inertial guidance updated by a Terrain Contour Matching (TERCOM) system. The inertial equipment is provided with the known location of the launch platform and target prior to launch. The system then controls the missile on a preprogrammed flight-path to the target. While the missile is flying over land, the TERCOM equipment compares taped digital map actual terrain references to the missile's position and corrects its course to the target. In the conventional land-attack missile, a Digital Scene Matching Area Correlator (DSMAC) compares stored photographic scenes with those observed through an optical lens, to achieve improved terminal accuracy.</p> <p>The FY99 program will procure a total of 114 remanufactured missiles; 15 in the Block III configuration and 99 in the Block IV/1 configuration.</p> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> <u>Characterstics and dimensions (approximate)</u>            Weight (with booster and capsule) (UGM-109): 4,300 pounds            Weight (with booster and canister) (RGM-109): 4,000 pounds            Length (with booster): 20.5 feet            Wing Span: 8.6 feet            Cruise Speed: High Subsonic         </div> <div> <u>Contractor:</u> Hughes Missiles Systems Company         </div> </div>												

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

**WEAPONS PROCUREMENT, NAVY**  
**FY 1998/99 OSD/OMB BUDGET**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
**(Dollars in Millions)**

Missile Nomenclature & Popular Name: TOMAHAWK (J2EL)(PEO(CU)) (BLI: 210100)

Date: Feb-98

Cost Elements	Prior Years Total Cost	FY 1996 Quantity	Quantity Unit Cost	Total Cost	FY 1997 Quantity	Quantity Unit Cost	Total Cost	FY 1998 Quantity	Quantity Unit Cost	Total Cost	FY 1999 Quantity	Quantity Unit Cost	Total Cost
<u>Missile Hardware</u>													
All-Up-Round	5,481,783	107	667	71,333	155	553	85,769	65	506	32,900	0	0	0
Total Hardware	5,481,783	107	667	71,333	155	553	85,769	65	506	32,900	0	0	0
<u>Procurement Support</u>													
Product Improvement	355,366			12,976			4,143			4,865			10,272
Systems Engineering Integration	264,271			3,982			3,154			3,725			4,319
Production Engineering	527,878			20,817			5,594			14,227			18,552
Total Procurement Support	1,147,515			37,775			12,891			22,817			33,143
Total Flyaway Cost	6,629,298			109,108			98,660			55,717			33,143
Remanufacture (Block III)	185,117	0	0	0	0	0	0	0	0	0	15	327	4,900
Remanufacture (Block IV/1)	0	0	0	0	0	0	0	0	0	0	99	862	85,900
<u>Fleet Support</u>													
Theater Mission Planning Center	243,598			2,750			2,745			2,800			3,501
Support Equipment	112,307			974			287			805			1,808
Training Equipment	78,019			0			0			0			0
Documentation	28,158			376			500			454			506
Total Fleet Support	462,082			4,100			3,532			4,059			5,815
Gross Weapons System	7,276,497			113,208			102,192			59,776			129,758
Less GFE Credit	0			(0)			(0)			(9,800)			(0)
Total Procurement Cost	7,276,497			113,208			102,192			49,976			129,758
Modifications	157,524			45,585			8,096			0			0
Initial Spares	297,089			6,565			4,814			1,408			3,171
Total Program Cost	7,731,110			165,358			115,102			51,384			132,929

**WEAPONS PROCUREMENT, NAVY  
FY 1998/99 OSD/OMB BUDGET  
MISSILE COST ANALYSIS  
EXHIBIT P-5  
(Dollars in Millions)**

Date: Feb-98

Missile Nomenclature & Popular Name TOMAHAWK (J2EL)(PEO(CU)) (BLI: 210100)

Cost Elements	<u>FY 2000</u> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	<u>Total Cost</u>	<u>FY 2001</u> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	<u>Total Cost</u>	<u>FY 2002</u> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	<u>Total Cost</u>	<u>FY 2003</u> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	<u>Total Cost</u>	To Complete Costs	<u>Total Cost</u>
<u>Missile Hardware</u>														
All-Up-Round	0	0	0	0	0	0	0	0	0	0	0	0	0	5,671,785
Total Hardware	0	0	0	0	0	0	0	0	0	0	0	0	0	5,671,785
<u>Procurement Support</u>														
Product Improvement			9,335			8,178			6,917			6,670		418,722
Systems Engineering Integration			3,309			3,256			2,977			3,123		292,116
Production Engineering			15,888			12,752			12,327			11,703		639,738
Total Procurement Support			28,532			24,186			22,221			21,496		1,350,576
Total Flyaway Cost			28,532			24,186			22,221			21,496		7,022,361
Remanufacture (Block III)	32	338	10,800	32	344	11,000	32	350	11,200	27	359	9,700		232,717
Remanufacture (Block IV/1)	109	745	81,600	100	734	73,720	81	740	60,500	196	603	118,281		420,001
<u>Fleet Support</u>														
Theater Mission Planning Center			3,433			6,069			6,325			7,798		279,019
Support Equipment			2,316			4,297			4,545			5,607		132,946
Training Equipment			0			0			0			0		78,019
Documentation			692			1,223			1,274			1,571		34,754
Total Fleet Support			6,441			11,589			12,144			14,976		524,738
Gross Weapons System			127,373			120,495			106,065			164,453		8,199,817
Less GFE Credit			(0)			(0)			(0)			(0)		9,800
Total Procurement Cost			127,373			120,495			106,065			164,453		8,190,017
Modifications			0			0			0			0		211,205
Initial Spares			634			502			357			557		315,097
Total Program Cost			128,007			120,997			106,422			165,010		8,716,319

CLASSIFICATION:

**UNCLASSIFIED**

<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>					Weapon System <b>TOMAHAWK</b>		A. DATE <b>Feb-98</b>			
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy BA2/Other Missiles</b>					C. P-1 ITEM NOMENCLATURE <b>Tomahawk (PEO(CU)) (BLI: 210100)</b>				SUBHEAD <b>J2EL</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
<u>All-Up-Round</u> 01000/FY97 01000/FY97 01000/FY98	120 35 65	569 506 506	NAVAIR NAVAIR NAVAIR	N/A N/A N/A	SS/OPTION SS/OPTION SS/OPTION	Hughes Missiles Systems Co. Tucson, AZ	Jan 97 Apr 98 Apr 98	Oct 98 Oct 99 Oct 99	YES YES YES	N/A N/A N/A
D. REMARKS  155 missiles will be procured with FY97 dollars: 120 have been procured with the FY97 contract option and 35 will be procured with FY98 contract option.										



DD Form 2445, JUL 87	Previous editions are obsolete	P-1 SHOPPING LIST	
311 / 244		ITEM NO 4 PAGE 5	Exhibit P-21 Production Schedule

# UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40												February 1998	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-(2) Other Missiles</b>								P-1 ITEM NOMENCLATURE <b>EVOLVED SEASPARROW MISSILE #230700</b>					
Program Element for Code B Items: <b>0604755N</b>								Other Related Program Elements <b>N/A</b>					
	Prior Years	ID Code	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY		B			1]		35	74	86	110	107		412
COST (\$M)					\$2.5	\$10.3	\$35.7	\$55.7	\$59.2	\$69.4	\$69.8		\$302.6
Initial Spares (\$M)													\$0.0
Total (\$M)					\$2.5	\$10.3	\$35.7	\$55.7	\$59.2	\$69.4	\$69.8		\$302.6
Unit Cost (\$M)					N/A	N/A	1.0	0.8	0.7	0.6	0.7		0.7
<p><u>ITEM DESCRIPTION/JUSTIFICATION:</u></p> <p>The Evolved Seasparrow Missile (ESSM) Program is an international cooperative effort to design, develop, test, and produce a new and improved version of the NATO Seasparrow missile (RIM-7P) with the kinematic performance to defeat current and projected threats that possess low altitude, high velocity and maneuver characteristics beyond the engagement capabilities of the RIM-7P. The ESSM will provide an evolved kinematically improved aft-end missile section for mating, as an all up round, with the modified RIM-7P forebody guidance and warhead section. The ESSM improvement will provide the capability to counter maneuvering anti-ship missiles, expand battle space, and increase system firepower. The ESSM is designed for "quad pack" in the MK41 Vertical Launching System and to be compatible with MK29 trainable launchers for employment in AEGIS, NSSMS, and SSDS configured ships.</p> <p>The FY98 request will provide for production tooling and test equipment, support equipment, and production support. The FY99 funds will support a Low-Rate Initial Production buy of 35 missiles and additional production start-up costs.</p> <p>ESSM is a cooperative effort among ten NATO Seasparrow nations (Australia, Canada, Denmark, Germany, Greece, Netherlands, Norway, Spain, Turkiye, and the U.S.). An addendum to the NATO Seapsarrow Surface Missile System Memorandum of Understanding (MOU), covering the Engineering and Manufacturing Development (EMD) phase of the ESSM was signed in June 1995. Signature of the MOU for the cooperative production of ESSM was completed in January 1998.</p> <p>ESSM is a Code "B" Item. Planned date of approval for service use is September 1999</p> <p>ESSM RDT&amp;E funding is included in program element 0604755N, Project U0173.</p> <p>1] \$2.5M for ESSM Transistion to Production is included in the SPARROW Modification line P1-14.</p>													

**WEAPONS PROCUREMENT, NAVY  
FY 1998/99 DEPARTMENT OF THE NAVY BUDGET  
MISSILE COST ANALYSIS  
EXHIBIT P-5  
(Dollars in Millions)**

Missile Nomenclature & Popular Name: EVOLVED SEASPARROW MISSILE (ESSM)

Date: February 1998

<u>Cost Elements</u>	<u>Prior Years Total Cost</u>	<u>FY 1995 Quantity</u>	<u>Quantity Unit Cost</u>	<u>Total Cost</u>	<u>FY 1996 Quantity</u>	<u>Quantity Unit Cost</u>	<u>Total Cost</u>	<u>FY 1997 Quantity</u>	<u>Quantity Unit Cost</u>	<u>Total Cost</u>	<u>FY 1998 Quantity</u>	<u>Quantity Unit Cost</u>	<u>Total Cost</u>	<u>FY 1999 Quantity</u>	<u>Quantity Unit Cost</u>	<u>Total Cost</u>
<u>Missile Hardware</u>																
All Up Round 1/														35	613	21,455
Warhead Compatible Telemeter														3	108	324
Total Hardware																21,779
<u>Procurement Support</u>																
Tooling and Test Equipment													6,565			6,542
Shipping Containers														35	4	140
Launch Adapter Kit - MK 29/48														35	11	385
Production Support										2,478			2,349			4,712
Total Procurement Support										2,478			8,914			11,779
Total Flyaway Cost										2,478			8,914			33,558
<u>Fleet Support</u>																
Support Equipment													1,363			785
Integrated Logistics Support																1,329
Total Fleet Support													1,363			2,114
Weapon System Cost										2,478			10,277			35,672
Modifications																
Initial Spares																
Total Program Cost										2,478			10,277			35,672

1/ Assumes a 7P front end is provided as GFE

CLASSIFICATION:

**UNCLASSIFIED**

<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>					Weapon System		A. DATE February 1998			
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-(2) Other Missiles</b>					C. P-1 ITEM NOMENCLATURE <b>EVOLVED SEASPARROW MISSILE #230700</b>				SUBHEAD <b>12ES</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
<b>FISCAL YEAR (99)</b>										
All Up Round	35	613	NAVSEA	Mar-98	SS/FP	HMSC, Tucson, AZ	Jan-99	Jan-01	Yes	
WCT	3	108	NAVSEA	Mar-98	SS/FP	HMSC, Tucson, AZ	Jan-99	Jan-01	Yes	
Shipping Container	35	4	NAVSEA	Mar-98	SS/FP	HMSC, Tucson, AZ	Jan-99	Jan-01	Yes	
LAK - MK29/MK48	35	11	NAVSEA	Mar-98	SS/FP	HMSC, Tucson, AZ	Jan-99	Jan-01	Yes	
D. REMARKS										

Exhibit P-20, Requirements Study		Approp Code/BA Weapons Procurement, Navy/BA-(2)		Subhead 12ES		Date: <b>February 1998</b>			
P-1 Line Item Nomenclature EVOLVED SEASPARROW MISSILE #230700				Admin Leadtime (after Oct 1): 03 months			Prod Leadtime: 20 months		
Project Unit/Item EVOLVED SEASPARROW MISSILE		FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Buy Summary QTY					35	74	86	110	107
Unit Cost					1.0	0.8	0.7	0.6	0.7
Total Cost		0	2.5	10.3	35.7	55.7	59.2	69.4	69.8
<b>Asset Dynamics</b>									
Beginning Asset Position							0	38	103
Deliveries from all prior year funding									
Deliveries from FY 1997 funding									
Deliveries from FY 1998 funding									
Deliveries from FY 1999 funding							35		
Deliveries from subsequent years' funding							6	75	88
Other Gains									
Combat Losses/Usage									
Training Losses/Usage								-4	-20
Test Losses/Usage							-3	-6	-9
Other Losses/Usage									
Disposals/Retirements/Attritions/etc.									-9
<b>End of Year Asset Position</b>							38	103	153
Inventory Objective/Current Authorized Allowance							119	278	422
Inventory Objective	Actual Training Expenditures	Other than Training Usage		Disposals (Vehicles/Other)					
	FY-96 thru 4/96:	FY-96 thru 4/96:		FY-96 thru 4/96:					
	FY-95: 0	FY-95: 0		FY-95: 0					
	FY-94: 0	FY-94: 0		FY-94: 0					
	FY-93: 0	FY-93: 0		FY-93: 0					
<b>TOTAL:</b>	0	0		0					
<b>REMARKS:</b>									

P-1 Shopping List Item No. 5

DD Form 2445, JUL 87	Previous editions are obsolete	P-1 SHOPPING LIST		
311 / 244		ITEM NO. 5	PAGE 5	Exhibit P-21 Production Schedule

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 1998	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b>							P-1 ITEM NOMENCLATURE <b>AMRAAM</b>					
Program Element for Code B Items: <b>BA 2 - Other Missiles</b>							Other Related Program Elements					
	Prior Years	ID Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	948		115	100	120	115	115	100	150	125	531	2,419
COST (\$M)	\$788.8		\$72.6	\$50.3	\$55.3	\$62.6	\$61.3	\$55.9	\$80.3	\$69.3	\$317.5	\$1,614.0
Initial Spares (\$M)	\$20.7		\$1.1	\$2.3	\$0.4	\$0.9	\$0.9	\$0.4	\$0.4	\$0.7	\$12.4	\$40.3
Total (\$M)	\$809.5		\$73.7	\$52.6	\$55.7	\$63.5	\$62.2	\$56.3	\$80.7	\$70.0	\$329.9	\$1,654.1
Unit Cost (\$M)	\$0.854		\$0.641	\$0.526	\$0.464	\$0.552	\$0.541	\$0.563	\$0.538	\$0.560	\$0.621	\$0.684
<p>MISSION AND DESCRIPTION:</p> <p>The Advanced Medium Range Air-to Air Missile (AMRAAM) is the next generation all-weather, all-environment radar guided missile developed by the Air Force and Navy to augment the AIM-7 Sparrow. AMRAAM is smaller, faster lighter, and has improved capabilities against very low-altitude and high-altitude targets in an electronic countermeasure environment. AMRAAM incorporates an active radar in conjunction with an inertial reference unit and microcomputer system which makes the missile less dependent upon the aircraft fire control system. This advanced capability enables the pilot to aim and fire several missiles at multiple targets.</p> <p>FY1999 PROGRAM JUSTIFICATION:</p> <p>115 missiles will be procured in FY 1999 along with non-recurring support costs such as; government field activity technical, test, and logistics support, procurement of test articles, containers, handling equipment, special tooling and test equipment to support the AIM-120C configuration, and procurement of peculiar support equipment in support of the all-up-round and component depot. The contractor for AMRAAM is Raytheon Corporation, which acquired Hughes Defense Systems in December, 1997.</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

**WEAPONS PROCUREMENT, NAVY**  
**FY 1999 PRESIDENT'S BUDGET**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
**(Dollars in Millions)**

Missile Nomenclature & Popular Name AMRAAM

Date: February 1998

<u>Cost Elements</u>	<u>Prior Years Total Cost</u>	<u>FY 1996 Quantity</u>	<u>Quantity Unit Cost</u>	<u>115 Total Cost</u>	<u>FY 1997 Quantity</u>	<u>Quantity Unit Cost</u>	<u>100 Total Cost</u>	<u>FY 1998 Quantity</u>	<u>Quantity Unit Cost</u>	<u>120 Total Cost</u>	<u>FY 1999 Quantity</u>	<u>Quantity Unit Cost</u>	<u>115 Total Cost</u>
<b>Missile Hardware</b>													
Guidance & Control	458.054	115	0.256	29.456	100	0.272	27.161	120	0.257	30.851	115	0.265	30.423
Propulsion	40.716	115	0.023	2.618	100	0.024	2.414	120	0.023	2.742	115	0.024	2.704
Warhead	10.179	115	0.006	0.655	100	0.006	0.604	120	0.006	0.686	115	0.006	0.676
ECO	23.542			2.293			1.501			1.714			1.690
<b>Procurement Support</b>													
Production Tech Support	98.745			21.108			12.629			7.998			13.948
ST&TE	41.109			0.000			0.000			0.700			0.600
Containers	2.130			0.000			0.116			0.000			0.000
Production Test	35.691			7.634			2.201			2.100			4.900
Total Procurement Support	177.675			28.742			14.946			10.798			19.448
Total Flyaway Cost	710.165	115	0.554	63.763	100	0.466	46.626	120	0.390	46.790	115	0.478	54.941
<b>Fleet Support</b>													
Test Equipment	50.016			3.914			0.328			2.810			2.180
Handling Equipment	0.225			0.160			0.190			0.100			0.120
Training Equipment	3.647			0.000			0.155			1.300			1.200
ILS	23.322			4.592			2.774			4.100			4.000
Data & Pubs	1.461			0.146			0.180			0.150			0.200
Total Fleet Support	78.671			8.813			3.626			8.460			7.700
Weapon System Cost	788.836	115	0.631	72.576	100	0.503	50.252	120	0.460	55.250	115	0.545	62.641
Modifications													
Initial Spares	20.707			1.133			2.272			0.368			0.929
Total Program Cost	809.543	115	0.641	73.709	100	0.525	52.524	120	0.463	55.618	115	0.553	63.570



6 PAGE NO. 3

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System <b>AMRAAM</b>		A. DATE <b>February 1998</b>			
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b>					C. P-1 ITEM NOMENCLATURE <b>AMRAAM</b>				SUBHEAD <b>Y2GB</b>	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
FY 1996	60 55	268 275	Eglin AFB, FI	9-21-95	C/FP C/FP	Lot X Hughes, Tucson AZ Raytheon, Lowell MA	1/29/96 1/29/96	12/97 12/97	YES YES	
FY 1997	53 47	286 297	Eglin AFB, FI	10-4-96	C/FP C/FP	Lot XI Hughes, Tucson AZ Raytheon, Lowell MA	1/28/97 1/28/97	12/98 12/98	YES	
FY 1998	120	300	Eglin AFB, FI	10-1-97	SS/FP	Lot XII Raytheon	3/31/98	10/99	YES	
FY 1999	115	309	Eglin AFB, FI	10-1-98	SS/FP	Lot XIII Raytheon	1/31/99	8/00	YES	
D. REMARKS										











CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40												DATE: February 1998	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b>								P-1 ITEM NOMENCLATURE <b>Joint Standoff Weapon (JSOW)</b>					
Program Element for Code B Items: <b>BA-2 Other Missiles</b>								Other Related Program Elements <b>0604727N, 0604727F, 27324F</b>					
	Prior Years	ID Code		FY 1996	FY 1997	FY 1998*	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	0	B		0	100	135	328	752	870	1,026	1,075	13,514	17,800
COST (\$M)	\$0.0			\$25.2	\$81.0	\$62.0	\$125.2	\$218.6	\$314.2	\$355.2	\$365.0	\$4,775.5	\$6,322.0
Initial Spares (\$M)	\$0.0			\$0.0	\$0.0	\$0.0	\$0.0	\$0.5	\$0.7	\$0.3	\$0.0	\$128.7	\$130.1
Total (\$M)	\$0.0			\$25.2	\$81.0	\$62.0	\$125.2	\$219.1	\$314.9	\$355.5	\$365.0	\$4,904.2	\$6,451.8
Unit Cost (\$M)	N/A			N/A	0.810	0.459	0.382	0.291	0.362	0.346	0.340	0.363	0.362

Joint Standoff Weapons (JSOW) is a joint USN/USAF program with the USN as the lead service. The JSOW program provides an air-to-ground glide weapon (AGM-154) capable of attacking a variety of targets during day, night and adverse weather conditions for use against fixed area targets. The JSOW will enhance aircraft survivability as compared to current interdiction weapon systems by providing the capability for launch aircraft to standoff outside the range of most target area surface-to-air threat systems. The JSOW Global Positioning System (GPS)/Inertial Navigation System (INS) capability will allow several target kills per aircraft sortie. The JSOW Baseline variant (AGM-154A) will be integrated on USN and USAF aircraft, with a planned inventory of 11,800 units. USN will procure an inventory of 8,800 All-Up-Rounds (AURs) for integration on F/A-18 and AV-8B aircraft, and the USAF will procure an inventory of 3,000 AURs for integration on F-16C/D, F-15E, B-1B and B-2 aircraft. JSOW Baseline completed EMD testing, including initial Operational Test, with an exceptional test success rate of 96% (41 of 43). JSOW Baseline full Operational Testing (OPEVAL) commenced in February 1997. JSOW BLU-108 Developmental Testing is ongoing and JSOW Unitary is currently in its initial Developmental Testing phase. JSOW Baseline (AGM 154A) Limited Rate Initial Procurement (LRIP) commenced with the USN FY 97 program. The BLU-108 variant and the Unitary variant commence production in FY 00 and FY 01, respectively. The FY98 budget request provided for the procurement of 135 Baseline variants for the Navy. The FY99 budget request provides for Full Rate Production of 328 Baseline variants and special tooling/special test equipment to support BLU-108 production in FY-00. \*FY 97 Congressional plus-up of \$15.6M was executed with the FY 98 procurement.



**WEAPONS PROCUREMENT, NAVY**  
**FY 1998/99 DEPARTMENT OF THE NAVY BUDGET**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
**(Dollars in Millions)**

Missile Nomenclature & Popular Name: Joint Standoff Weapons (JSOW)										Date: February 1998		
Cost Elements	Prior Years		FY 1996		FY 1997		FY 1998		FY 1999		Total Cost	
	Total Cost	Quantity	Total Cost	Unit Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Quantity	Unit Cost	Total Cost
Missile Hardware												
All Up Round (AUR)		00	0.000		100		42.221	135 *		328		84.602
Contractor (Warranty/ECO/Data)			0.000				0.713					5.076
Total Hardware		00	0.000	0.000	100	0.429	42.934	135	0.391	328	0.273	89.678
Procurement Support												
LC GEU/Control			0.000				7.386					0.000
Gov't In-house/Prod Supt			0.000				4.464					3.313
Special Tools and Test Equip			25.198				3.100					24.604
Containers			0.000				2.137					3.651
Telemetry			0.000				2.784					1.936
Command & Launch/ ST&E/Mission/SW			0.000				0.760					0.000
Total Procurement Support			25.198				20.631					33.504
Total Flyaway Cost			25.198	100	0.636		63.565	135	0.548	328	0.376	123.182
Fleet Support												
ILS/Support			0.000				1.879					2.025
Total Fleet Support			0.000				1.879					2.025
Weapons System Cost			25.198	100	0.654		65.444	135	0.575	328	0.382	125.207
FY 97 Congressional Add Adjustment							15.574					
Net P-1 Cost							81.018					-15.574 62.027
Modifications			0				0					0
Initial Spares			0				0					0.469
Total Program Cost			25.198	100	0.810		81.018	135	0.459	328	0.383	125.676
*FY 97 Congressional plus-up of \$15.6M will be executed with the FY 98 procurement												

\*FY 97 Congressional plus-up of \$15.6M will be executed with the FY 98 procurement

**WEAPONS PROCUREMENT, NAVY**  
**FY 1998/99 DEPARTMENT OF THE NAVY BUDGET**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
**(Dollars in Millions)**

Missile Nomenclature & Popular Name: Joint Standoff Weapons (JSOW)

Date: \_\_\_\_\_ To \_\_\_\_\_  
February 1998

Cost Elements	FY 2000		FY 2001		FY 2002		FY 2003		Total Cost		Quantity		Total Cost		Complete Costs		Total Cost
	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	Quantity	Unit Cost	
<u>Missile Hardware</u>																	
All Up Round (AUR)	752								179.556		870		269.306		1,026		5,524.266
Contractor (Warranty/ECO/Data)									10.773				14.817				326.134
Total Hardware	752	0.239	870	0.310	1,026	0.298	1,075	0.271	190.329	16.949	306.113	17.508	323.062	309.307	4,299.671	258.573	5,850.400
<u>Procurement Support</u>																	
LC GEU/Control									0.000				0.000	0.000	-0.093		11.140
Gov't In-house/Prod Supt									2.924				5.647	6.030	28.468		63.433
Special Tools and Test Equip									12.183				7.473	24.087	3.482		112.762
Containers									7.491				8.181	9.773	122.267		165.174
Telemetry									3.713				5.380	5.314	38.226		62.563
Command & Launch/ST&E/Mission/SW									0.000				0.320	0.000	0.000	1.018	1.018
Total Procurement Support									26.311				27.001	45.204	192.350		416.090
Total Flyaway Cost	752	0.288	870	0.358	1,026	0.340	1,075	0.330	216.640	348.650	354.511	4,750.594	354.511	4,750.594			6,266.490

Fleet Support

ILS/Support									1.971				3.088				55.231
Total Fleet Support									1.971				3.088				55.231
Weapon System Cost	752	0.291	870	0.361	1,026	0.346	1,075	0.340	218.611	355.109	1,075	0.340	314.212	364.999	4,776.311		6,321.721
Modifications									0.000				0.000	0.000	0.000		0.000
Initial Spares									0.590				0.666	0.000	128.118		130.130
Total Program Cost	752	0.291	870	0.362	1,026	0.346	1,075	0.340	219.201	355.396	1,075	0.340	314.878	364.999	4,904.429		6,451.851

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE February 1998			
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy B.A. 2-Other Missiles					C. P-1 ITEM NOMENCLATURE Joint Standoff Weapon				SUBHEAD Y2JS	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
Special Tools/ Test Equipment FY-96	Lot	N/A	NAVAIR	N/A	SS/CPIF (option on E&MD)	TEXAS INSTRUMENTS (Lewisville, TX)	Mar 96	Dec 96	N/A	N/A
FY-99	Lot	N/A	NAVAIR	May 98	SS/FPIF	RAYTHEON SYSTEMS (Lewisville, TX)	Nov 98	Aug 99	N/A	N/A
<u>LRIP</u> FY-97	100	429	NAVAIR	N/A	SS/CPIF (option on E&MD)	RAYTHEON SYSTEMS (Lewisville, TX)	Feb 97	May 98	N/A	N/A
FY-98	135*	391	NAVAIR	May 97	SS/FPIF	RAYTHEON SYSTEMS (Lewisville, TX)	Dec 97	Jan 99	N/A	N/A
FY-99	328	273**	NAVAIR	May 98	SS/FPIF	RAYTHEON SYSTEMS (Lewisville, TX)	Dec 98	Jan 00	N/A	N/A
D. REMARKS *FY 97 Congressional plus-up of \$15.6M was executed with the FY 98 procurement. **Reduced unit cost reflects the introduction of USAF quantities as well as an increase in USN quantities.										

DD Form 2445, JUL 87	Previous editions are obsolete	P-1 SHOPPING LIST		
311 / 244		ITEM NO	PAGE	Exhibit P-21 Production Schedule
		7	5	



CLASSIFICATION:

UNCLASSIFIED

<b>P-40</b>												<b>DATE:</b> <b>FEBRUARY 1998</b>	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/ BA 2</b>								P-1 ITEM NOMENCLATURE <b>STANDARD MISSILE(SM-2 MR/ER) 12FE BLI:223400</b>					
Program Element for Code B Items:								Other Related Program Elements					
	Prior Years	ID Code	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	9,845	A	188	22	127	100	115	95	110	126	159	1,639	12,526
COST (\$M)	\$5,869.2	A	\$240.4	\$125.6	\$209.4	\$176.4	\$225.7	\$194.9	\$184.7	\$209.2	\$238.2	2,082	\$9,755.5
Initial Spares (\$M)	\$132.1	A	\$4.0	\$7.6	\$5.4	\$1.2	\$8.2	\$9.6	\$12.4	\$14.1	\$13.6	122	\$330.5
Total (\$M)	\$6,001.3	A	\$244.4	\$133.2	\$214.8	\$177.6	\$233.9	\$204.5	\$197.1	\$223.3	\$251.8	2,204	\$10,086.0
Unit Cost (\$M)	0.6	A	1.3	6.1	1.7	1.8	2.0	2.2	1.8	1.8	1.6		

(U)PROGRAM OVERVIEW:

The STANDARD Missile SM-2 Medium Range (MR) and Extended Range (ER) are solid-propellant, tail-controlled surface-to-air missiles which are the main air defense battery for AEGIS/NTU guided missile cruisers and destroyers. The SM-2 Block IIIA and earlier variants are currently deployed.

(U) Continually being upgraded to preserve battle group effectiveness against evolving cruise missile and Tactical Ballistic Missile (TBM) threats, SM-2 has three improvements which will be procured for AEGIS cruisers and destroyers equipped with the MK41 Vertical Launch System (VLS). The SM-2 Block IIIB configuration improves the Block IIIA baseline through the Missile Homing Improvement Program(MHIP) to address a specific type of deployed threat. SM-2 Block IV, with a new separable booster, evolves the Block IIIA baseline missile to provide greater kinematic capability and dramatic increases in performance of Block IIIA. The SM-2 Block IVA is a product improvement to the Block IV missile to provide a near term capability against TBMs with an objective of maintaining the current Block IV AAW capability.

(U) In the event that the SM-2 Blk IVA EMD exit criteria are met on schedule, FY99 production will be SM-2 Blk IVA vice Blk IV.

(U) The mix of SM-2 Blk IVs and IVA's in FY99 may change as a result of the IVA EMD schedule.

**WEAPONS PROCUREMENT, NAVY  
1999 DEPARTMENT OF THE NAVY BUDGET  
MISSILE COST ANALYSIS  
EXHIBIT P-5  
(Dollars in Millions)**

Date: **FEBRUARY 1998**

STANDARD MISSILE (SM-2 MR/ER)

<u>Cost Elements</u>	<u>FY 1997</u> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	<u>Total Cost</u>	<u>FY 1998</u> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	<u>Total Cost</u>	<u>FY 1999</u> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	<u>Total Cost</u>
<u>Missile Hardware</u>									
G,C&A/MK72 BOOSTER(FE001)									
AEGIS BLK IIIA									
AEGIS BLK IIIB	80	527.5	42,197	72	669.0	48,166	70	622.6	43,582
AEGIS BLK IV	47	1,627.3	76,482	28	1,821.7	51,007	45	1,683.9	75,777
AEGIS BLK IVA									
SM AEGIS IMPROV									
REQUEST FOR EQUITABLE ADJ (REA)									
MK104 DTRM(FE009)	127	53.3	6,764	100	52.4	5,237	115	54.9	6,309
REQUEST FOR EQUITABLE ADJ (REA)									
MK54 S&A DEVICE(FE003)	127	9.1	1,158	100	8.4	840	115	7.8	902
MK45 TDD MOD 9/10(FE005)	127	48.3	6,134	100	44.9	4,494	115	48.8	5,607
MK125 WARHEAD(FE006)	127	20.8	2,647	100	19.2	1,921	115	17.9	2,063
Total Hardware	127	1,066.0	135,382	100	1,116.7	111,665	115	1,167.3	134,240
<u>Procurement Support</u>									
CONTRACTOR ENGINEERING (FE830)			11,040			11,010			16,378
GOVERNMENT IN-HOUSE ENG(FE830)			4,748			4,783			8,264
QUALITY ASSURANCE (FE840)			2,459			2,383			2,509
DOCUMENTATION(FE954)			1,078			1,028			1,628
PRODUCTION PROOF (FE955)			5,588			5,095			6,890
EVAL SERV& MAT'L(FE860)			18,366			17,498			18,593
CONTAINERS(FE957)			1,106			992			2,024
TOOLS AND TEST EQUIP(FE950)			8,826			4,425			6,144
COMPONENT IMPROVEMENTS(FE850)			5,198			3,898			9,423
INSTAL &CHECKOUT EQUIP(FE970)			6,732			6,483			7,471
SPEC HANDL EQUIP(FE971)			502			502			1,550
TRNG MTL EXP & NON-EXP(FE972)			5,878			4,082			7,993
FLEET DOCUMENTATION(FE973)			1,368			1,468			1,468
ILS(FE980)			1,177			1,127			1,127
Total Procurement Support			74,066			64,774			91,462
Total Flyaway Cost			193,791			162,777			206,093
<u>Fleet Support</u>									
			15,657			13,662			19,609
Total Fleet Support									
Weapon System Cost			209,448			176,439			225,702
Modifications			16,864			35,601			46,433
Initial Spares			5,393			1,162			8,203
Total Program Cost			231,705			213,202			280,338

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)						Weapon System		A. DATE FEBRUARY 1998		
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-2					C. P-1 ITEM NOMENCLATURE STANDARD MISSILE (SM2 MR/ER)				SUBHEAD 12FE	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF YES WHEN AVAILABLE
UNIQUE SM2 MR/ER HARDWARE FE001 GC&A/MK72 BOOSTER										
FY97 BLK IIIB AEGIS	80	527.5	NAVSEA		FFP/AF	SMCO - McClean,VA	04/97	04/99	YES	NO
FY97 BLK IV AEGIS	47	1627.3	NAVSEA		FPI/AF	SMCO - McClean,VA	04/97	04/99	YES	NO
FY98 BLK IIIB AEGIS	72	669	NAVSEA		FFP/AF	SMCO - McClean,VA	02/98	01/00	YES	NO
FY98 BLK IV AEGIS	28	1821.7	NAVSEA		FFP/AF	SMCO - McClean,VA	02/98	01/00	YES	NO
FY99 BLK IIIB AEGIS	65	670.5	NAVSEA		FFP/AF	SMCO - McClean,VA	01/99	01/01	YES	NO
FY99 BLK IV AEGIS	43	1762.3	NAVSEA		FFP/AF	SMCO - McClean,VA	01/99	01/01	YES	NO
COMMON HARDWARE FE009 DTRM MK104										
FY97 MOD 2/3	127	53.3	NAVSEA		SS/FFP/PI	ARC-Camden,AR	05/97	12/98	YES	NO
FY98 MOD 2/3	100	52.4	NAVSEA		SS/FFP/PI	ARC-Camden,AR	03/98	10/99	YES	NO
FY99 MOD 2/3	108	58.4	NAVSEA		SS/FFP/PI	ARC-Camden,AR	03/99	10/00	YES	NO
FE003 SAFETY & ARMING DEVICE										
FY97 MK 54	127	9.1	NAVSEA		SS/FFP	KAMAN - Middletown,CT	05/97	12/98	YES	NO
FY98 MK 54	100	8.4	NAVSEA		SS/FFP	KAMAN - Middletown,CT	03/98	10/99	YES	NO
FY99 MK54	108	8.4	NAVSEA		SS/FFP	KAMAN - Middletown,CT	03/99	10/00	YES	NO
D. REMARKS										



# UNCLASSIFIED

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)					Weapon System		A. DATE FEBRUARY 1998			
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-2					C. P-1 ITEM NOMENCLATURE STANDARD MISSILE (SM2 MR/ER)				SUBHEAD 12FE	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF YES WHEN AVAILABLE
COMMON HARDWARE(cont) FE005 ORDNANCE MK45 TDD										
FY97 MOD 9/10	127	48.3	NAVSEA		SS/FFP/PI	MOTOROLA,Scottsdale,AZ	06/97	10/98	YES	NO
FY98 MOD 9/10	100	44.9	NAVSEA		SS/FFP/PI	MOTOROLA,Scottsdale,AZ	06/98	10/99	YES	NO
FY99 MOD 9/10	108	51.9	NAVSEA		SS/FFP/PI	MOTOROLA,Scottsdale,AZ	06/99	10/00	YES	NO
FE006 WARHEAD										
FY97 MK125	127	20.8	NAVSEA		SS/FFP	HERCULES - Magna,UT	04/97	10/98	YES	NO
FY98 MK 125	100	19.2	NAVSEA		SS/FFP	HERCULES - Magna,UT	04/98	10/99	YES	NO
FY99 MK 125	108	19.1	NAVSEA		SS/FFP	HERCULES - Magna,UT	04/99	10/00	YES	NO
D. REMARKS										

FY 1998/99 BUDGET PRODUCTION SCHEDULE, P-21							DATE January 1998																				
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy							Weapon System							P-1 ITEM NOMENCLATURE STANDARD MISSILE													
							Production Rate (NOTE 1)			Procurement Leadtimes																	
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure													
NOTE 2.	HMSC/TUCSON, AZ					9	100	200			24	24															
NOTE 2.	RAYTHEON/BRISTOL, TN					9	40	80			24	24															
	SMCo/McLEAN, VA					10	100	180			24	24															

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 1997												FISCAL YEAR 1998												B A L
						1996			CALENDAR YEAR 1997									CALENDAR YEAR 1998												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
						HMSC	1994		101	74	27	9	9	9																
HMSC (FMS)	1994		43	0	43				5	5	5	5	5	5	6	7														
HMSC (SM-1 FMS)	1994		20	0	20				4	4	4	4	4																	
RAYCO	1994		101	81	20	9	9	2																						
RAYCO (FMS)	1994		44	0	44				4	4	4	4	4	4	3	3	3	3	4	4										
SMCo	1995		188	0	188										13	13	16	16	17	17	17	17	16	16	15	15				
SMCo (FMS)	1995		108	0	108																					14	14	80		
SMCo	1996		22	0	22																		3	3	4	4	3	3	2	
SMCo	1997		127	0	127							A	BLK IIIIB/IV															127		
SMCo	1998		100	0	100															A	BLK IIIIB/IV							100		

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 1999												FISCAL YEAR 2000												B A L
						1998			CALENDAR YEAR 1999									CALENDAR YEAR 2000												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
						SMCo(FMS)	1995		108	28	80	14	14	14	13	10	8	7												
SMCo	1996		22	22																										
SMCo	1997		127	0	127							14	14	14	14	14	14	14	14	15										
SMCo(FMS)	1997		38	0	38									6	6	6	5	5	5	5										
SMCo	1998		100	0	100																8	8	8	8	8	8	8	8	9	
SMCo(FMS)	1998		5	0	5																1	1	1	1	1				27	
SMCo	1999		108	0	108				A	BLK IIIIB		A	BLK IV																108	

Remarks:

Notes: (1) MIN RATES ESTABLISHED AT COMPONENT LEVEL (MK 104 DTRM) - MIN RATE MET WITH ADDITION OF INITIAL SPARES  
 (2) Pre FY95 Production Only



CLASSIFICATION: UNCLASSIFIED

UNCLASSIFIED

BUDGET ITEM JUSTIFICATION SHEET P-40												DATE: February 1998	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2</b>								P-1 ITEM NOMENCLATURE      2242 <b>RIM 116A - ROLLING AIRFRAME MISSILE (RAM)</b>					
Program Element for Code B Items: 0604755N								Other Related Program Elements					
	Prior Years	ID Code			FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	N/A	B			135	100	100	90	90	145	125		
COST (\$M)	N/A				\$46.9	\$41.0	\$44.8	\$46.4	\$45.3	\$78.4	\$74.1		
Initial Spares (\$M)	N/A				\$1.2	\$1.3	\$2.3	\$1.7	\$2.0	\$3.2	\$3.4		
Total (\$M)	N/A				\$48.1	\$42.3	\$47.1	\$48.1	\$47.3	\$81.6	\$77.5		
Unit Cost (\$M)	N/A				\$0.4	\$0.4	\$0.5	\$0.5	\$0.5	\$0.6	\$0.6		
<p><b>ITEM DESCRIPTION/JUSTIFICATION:</b>            Rolling Airframe Missile (RAM) is a high fire-power, low cost, lightweight complementary self-defense system to engage anti-ship missiles. It has dual-mode passive Radio Frequency/Infrared (RF/IR) guidance and will be fired from a RAM Guided Missile Launching System (MK-49) which holds 21 RAM rounds. Approval for full rate production, Milestone III was granted on 6 May 1993.</p> <p style="margin-left: 40px;">FY97 funds will procure 135 Block 0 Missiles.            FY98 funds will procure 60 Block 0 and 40 Block 1 Missiles.            FY99 funds will procure 100 Block 1 Missiles.</p> <p><b>COOPERATIVE AGREEMENTS:</b>            RAM is a NATO cooperative project with the Federal Republic of Germany. The RAM production MOU, approved and signed by the US and Germany (GE) on 3 August 1987, specifies production procedures for the Guided Missile Round Pack and coproduction of the Guided Missile Launching System. Missile limited production contracts were awarded to US (General Dynamics/Air Defense Systems Division) and German (RAM System GmbH) sources in 1989. As a result of the reduced US missile quantities and a desire to maintain production capabilities in both countries, an arrangement between the US and German producers, for single source coproduction of the German full-rate production quantities, was approved by both governments in November 1992 and this arrangement continues for U.S. rate production. In August 1992, the acquisition of General Dynamics by Hughes Aircraft Company was approved, making Hughes Missile Systems Co. the US prime contractor. In January 1998, Raytheon acquired Hughes Missile Systems Co., making Raytheon the US prime contractor.</p>													

**WEAPONS PROCUREMENT, NAVY**  
**FY 1998/99 DEPARTMENT OF THE NAVY BUDGET**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
**(Dollars in Thousands)**

Missile Nomenclature & Popular Name: ROLLING AIRFRAME MISSILE (RAM)

February 1998

<u>Cost Elements</u>	<u>Prior Years</u>	<b>FY 1997</b>	<u>Quantity</u>	<u>Total Cost</u>	<b>FY 1998</b>	<u>Quantity</u>	<u>Total Cost</u>	<b>FY 1999</b>	<u>Quantity</u>	<u>Total Cost</u>
	<u>Total Cost</u>	<u>Quantity</u>	<u>Unit Cost</u>		<u>Quantity</u>	<u>Unit Cost</u>		<u>Quantity</u>	<u>Unit Cost</u>	
224200										
<u>Missile Hardware</u>										
G&CA(INCLUDING I&A) EF001		135	266.7	36,000	60	292.1	17,526			
BLOCK 1 EF001					40	350.0	14,000	100	357.8	35,780
COMPONENT IMPROV EF850				743			597			508
PROPULSION EF002		135	7.4	1,001	100	8.1	810.0	100	8.3	830
ORDNANCE PACK (TD) EF005		135	22.3	3,010	100	33.5	3,350	100	33.5	3,350
WARHEAD EF006					100	2.6	255	100	2.8	280
SAFE & ARM DEVICE EF004		82	1.8	150	100	2.5	250	100	2.9	290
TELEMETER for BLK 0 EF010										
TELEMETER for BLK 1 EF010										
Total Hardware				40,904			36,788			41,038
<u>Procurement Support</u>										
CONTRACTOR ENGIN EF830				336			926			639
GOVT IN-HOUSE ENGIN EF830				3,201			2,500			2,553
PRODUCTION ACCEPT EF860				703			785			536
Total Procurement Support				4,240			4,211			3,728
<u>Non-recurring Proc Supt</u>										
TOOLS & TEST EQUIP EF950				1,714			0			0
Total Flyaway Cost		135	347.1	46,858	100	410.0	40,999	100	447.7	44,766
<u>Fleet Support</u>										
ILS EF974							0			0
CONTAINER EF957										
Total Fleet Support										0
Weapon System Cost				46,858			40,999			44,766
Modifications										
Initial Spares				1,155			2,181			2,250
Total Program Cost				48,013			43,180			47,016

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)						Weapon System		A. DATE <b>February 1998</b>		
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2</b>					C. P-1 ITEM NOMENCLATURE <b>RAM MISSILE</b>				SUBHEAD 12EF	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
<b>EF001</b> GUIDANCE & CONTROL ASSEMBLY FY1997										
BLOCK 0 MISSILES	135	266.7	NAVSEA		SS/FP	HMSC, TUCSON, AZ	10/96*	10/98	YES	
FY 1998										
BLOCK 0 MISSILES	60	292.1	NAVSEA	5/97	SS/FP	HMSC, TUCSON, AZ	1/98	10/99	YES	
BLOCK 1 MISSILES	40	350.0	NAVSEA	6/97	SS/CPIF	HMSC, TUCSON, AZ	1/98	10/99	YES	
FY 1999										
BLOCK 1 MISSILES	100	357.8	NAVSEA	5/98	SS/FP	RAYTHEON, TUCSON, AZ	1/99	10/00	YES	
<b>EF002</b> PROPULSION ROCKET MOTOR MK112/1 W/ARMING & FIRING DEVICE MK 298/1										
FY 1997	135	7.4	NAVAIR	SS/FP	C/FP	ATLANTIC RESEARCH	11/97**	5/99	YES	
FY 1998	100	8.1	NAVAIR	7/97	C/FP	ATLANTIC RESEARCH	11/97	7/99	YES	
FY 1999	100	8.3	NAVAIR	7/98	OPTION	COMPETITIVE	2/99	8/00	YES	
<b>EF005</b> ORDANCE PACKAGE TARGET DETECTOR/MK20 MOD 2										
FY 1997	135	22.3	NAVSEA		SS/CPIF	HMSC, TUCSON, AZ	12/96	2/98	YES	
FY 1998	100	33.5	NAVSEA	6/97	SS/FPI	HMSC, TUCSON, AZ	11/97	1/99	YES	
FY 1999	100	33.5	NAVSEA	6/98	SS/FP	RAYTHEON, TUCSON	11/98	1/00	YES	
D. REMARKS										
*FY97 contract awarded late due to vendor requalification. **FY98 Rocket Motors will deliver immediately after FY97 Rocket Motors.										

CLASSIFICATION:

**UNCLASSIFIED**

<b>BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)</b>					Weapon System		A. DATE <b>February 1998</b>			
B. APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2</b>					C. P-1 ITEM NOMENCLATURE <b>RAM MISSILE</b>				SUBHEAD 12EF	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF NO WHEN AVAILABLE
<b>EF004</b> SAFE & ARM MK 13/2										
FY 1997	82	1.8	NAVAIR		C/FP	RAYMOND ENGIN	7/97	7/97*	YES	
FY 1998	100	2.5	NAVAIR	7/97	C/FP	COMPETITIVE	5/98	5/99	YES	
FY 1999	100	2.9	NAVAIR	7/98	C/FP	OPTION	11/98	11/99	YES	
<b>EF006</b> WARHEAD WDU 17/8										
FY 1998	100	2.6	NAVAIR	7/97	C/FP	COMPETITIVE	5/98	5/99	YES	
FY 1999	100	2.8	NAVAIR	7/98	C/FP	OPTION	11/99	11/00	YES	
FY 1999										
D. REMARKS	* FY97 Safe and Arm Devices delivered at time of contract award from contractor's inventory.									

## Exhibit P-21 Production Schedule



DD Form 2445, JUL 87	Previous editions are obsolete	P-1 SHOPPING LIST	
311 / 244		ITEM NO 9      PAGE 6	Exhibit P-21 Production Schedule

CLASSIFICATION:

**UNCLASSIFIED****BUDGET ITEM JUSTIFICATION SHEET****P-40**

DATE:

**February 1998**

APPROPRIATION/BUDGET ACTIVITY

**Weapons Procurement, Navy/2 - Other Missiles**

P-1 ITEM NOMENCLATURE

**HELLFIRE AGM-114K PEO(T)**

	Prior Years	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	9,581										
COST (\$M)	\$391.0	\$0.0	\$0.0	\$19.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$410.5
Initial Spares (\$M)	\$4.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$4.4
Total (\$M)	\$395.4	\$0.0	\$0.0	\$19.5	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$414.9
Unit Cost (\$M)	0.041	0	0		0	0	0	0	0	0	

The Hellfire II (AGM-114K) is a laser guided missile that can be employed from land or carrier based helicopters. The AGM-114 was developed by the Army as executive service to be used as it's primary anti-armor missile for the advanced attack helicopter (AAH-64). The AGM-114K gives the USMC AH-1W helicopter the ability to penetrate modern armor with minimum exposure of the launching platform to enemy counterfire. Approval for Full Rate Production was granted in March 1986. The Hellfire II contains an electro-optical countermeasure (EOCM) seeker to defend against optical countermeasures. The missile contains a new digital autopilot and an electronic fuze for the robust warhead.

<u>Quantities Summary</u>	<u>FY97</u>	<u>FY98</u>	<u>FY99</u>
Army	1800	368	0
Navy	0	232	0
TOTAL (USN/USA)	0	600	0

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

**WEAPONS PROCUREMENT, NAVY**  
**FY 1999 PRESIDENT'S BUDGET**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
**(Dollars in Millions)**

Missile Nomenclature & Popular Name AGM-114K (HELLFIRE II)

Date: February 1998

<u>Cost Elements</u>	<u>FY 1996</u>	<u>Quantity</u>		<u>FY 1997</u>	<u>Quantity</u>		<u>FY 1998</u>	<u>Quantity</u>		<u>FY 1999</u>	<u>Quantity</u>	
	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>	<u>Quantity</u>	<u>Unit Cost</u>	<u>Total Cost</u>
<u>Missile Hardware</u>												
GC&A/Motor							232	0.040	9.280			0.000
Warhead							132	0.015	1.980			0.000
SAD							132	0.003	0.396			0.000
Total Hardware	0.000		0.000	0.000		0.000		0.058	11.656	0.000		0.000
<u>Recurring Production Support</u>												
Govt In-House									3.000			0.000
Govt Test Program									2.625			0.000
Contractor SE/PM									0.040			0.000
Total Recurring Prod Support	0.000		0.000			0.000			5.665	0.000		0.000
RECURRING FLYAWAY	0.000	0.000	0.000	0.000	0.000	0.000	232	0.075	17.321	0.000	0.000	0.000
<u>Non-Recurring Costs</u>												
Acceptance Test Equipmen						0.000	0	0.000	0.000	0.000	0.000	0.000
Containers						0.000	0	0.000	0.600	0.000	0.000	0.000
Second Source						0.000	0	0.000	0.000	0.000	0.000	0.000
Product Improvement						0.000	0	0.000	0.000	0.000	0.000	0.000
Total Non-Recurring Costs	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	0.600	0.000	0.000	0.000
TOTAL MISSILE FLYAWAY	0.000	0.000	0.000	0.000	0.000	0.000	232	0.077	17.921	0.000	0.000	0.000
<u>Fleet Support</u>												
Test Equipmen					0.000	0.000	0	0.000	0.000	0.000	0.000	0.000
Handling Equipmen					0.000	0.000	0	0.000	0.000	0.000	0.000	0.000
Training Equipmen					0.000	0.000	0	0.000	0.000	0.000	0.000	0.000
Data & Pubs					0.000	0.000	0	0.000	0.000	0.000	0.000	0.000
Integrated Logistics Support	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	1.600	0.000	0.000	0.000
Total Fleet Support	0.000	0.000	0.000	0.000	0.000	0.000	0	0.000	1.600	0.000	0.000	0.000
Weapon System Cost	0.000	0.000	0.000	0.000	0.000	0.000	232	0.084	19.521	0.000	0.000	0.000
Modifications			0.000			0.000	0	0.000	0.000	0.000	0.000	0.000
Initial Spares			0.000			0.000	0	0.000	0.000	0.000	0.000	0.000
Total Program Cost	0.000	0.000	0.000	0.000	0.000	0.000	232	0.084	19.521	0.000	0.000	0.000

P-1 SHOPPING LIST

DD Form 2454, JUN 86

ITEM NO 10 PAGE NO 2

**CLASSIFICATION**  
**UNCLASSIFIED**

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)								A. DATE February 1998		
B. APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/2 - Other Missiles				C. P-1 ITEM NOMENCLATURE HELLFIRE II AGM-114K				SUBHEAD Y2F6		
Cost Element/ FISCAL YEAR	CONTRACTOR AND LOCATION	CONTRACT METHOD & TYPE	CONTRACTED BY	AWARD DATE	DATE OF FIRST DELIVERY	QUANTITY	UNIT COST (000)	SPECS AVAILABLE NOW	SPEC REV REQ'D	IF YES WHEN AVAILABLE
<u>HELLFIRE II</u>										
FY 1994	MARTIN MARIETTA Orlando, FL	MIPR/OPTION	U.S. Army	1/94	1/96	1,931	34.5	YES	NO	
FY 1998	LOCKHEED MARTIN, Hellfire Systems Limited Liability Company (HSLLC)	MIPR/FFP	U.S. Army	6/98	5/00	232	58.0	YES	NO	
D. REMARKS										

**UNCLASSIFIED**





CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 1998	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy BA2 - Other Missiles</b>							P-1 ITEM NOMENCLATURE <b>PENGUIN (J2GS) PEO(CU)</b>					
	1994 & Prior Years	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY	101	0	0	0	0	0	0	0	0	0	0	101
	\$158.2	\$0.0	\$0.0	\$6.9	\$7.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$172.4
Initial Spares (\$M)	\$6.4	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$6.4
Total (\$M)	\$164.6	\$0.0	\$0.0	\$6.9	\$7.3	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$178.8
Unit Cost (\$M)	\$1.630	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$0.000	\$1.770
<p>The Penguin missile system is an Anti-Ship Missile, manufactured in Norway by Kongsberg Aerospace. The missile, designated the AGM-119B, is launched from the SH-60B LAMPS MK III helicopter operating from U.S. Navy ships. The Penguin missile is a short-to-medium range, rolling airframe, inertially guided missile with passive infrared terminal homing. The Naval Air Systems Command, PMA-258, provides total life cycle support for the Penguin missile to meet customer requirements and to support fleet operations. The planned number of Penguin capable helos and ships is 188 and 64, respectively. The last Penguin AUR missile buy for the Navy was FY 1992.</p> <p>Funding provided in FY 1997 allowed for the procurement of six Penguin training missiles through Kongsberg Aerospace, with a contract award date of June 1997. These units will be delivered in APR 99 and will allow pilots to maintain proficiency in the use of this weapon.</p> <p>FY98 funding will be used to buy components for the Missile Launch Assembly(MLA), the interface between the SH-60B Helo and the Penguin Missile. MLA Components are the prime missions degraders and are essential to maintain the viability of the Penguin program. 45 missile simulators used in Weapons Loading evolutions and tactical missile components will also be procured.</p> <p>No Navy procurement is planned in FY 1999 and out.</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

**WEAPONS PROCUREMENT, NAVY**  
**FY 1998/99 DEPARTMENT OF THE NAVY BUDGET**  
**MISSILE COST ANALYSIS**  
**EXHIBIT P-5**  
**(Dollars in Millions)**

Missile Nomenclature & Popular Name:

PENGUIN

Date: Feb 1998

<u>Cost Elements</u>	<u>Prior Years</u> <u>Total Cost</u>	<b>FY 1995</b> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	<u>Total Cost</u>	<b>FY 1996</b> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	<u>Total Cost</u>	<b>FY 1997</b> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	<u>Total Cost</u>	<b>FY 1998</b> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	<u>Total Cost</u>	<b>FY 1999</b> <u>Quantity</u>	<u>Quantity</u> <u>Unit Cost</u>	<u>Total Cost</u>
<u>Missile Hardware</u>																
HMB/SYS ENGR/DATA																
ECO																
SLAM UNIQUE																
ENGINE																
WARHEAD																
WINGS & FINS																
Total Hardware																
<u>Procurement Support</u>																
GOVT IN-HOUSE																
Total Procurement Support																
Total Flyaway Cost																
<u>Fleet Support</u>																
TRAINING EQUIPMENT										6.060			4.955			
FIELD ACTIVITY SUPPORT										0.792			2.367			
ILS SERVICES																
Total Fleet Support										6.852			7.322			
Weapon System Cost										6.852			7.322			
Modifications																
Advanced Procurement	8.977															
Various 1/	149.235															
Initial Spares	6.388			0.000			0.000			0.000			0.000			0.000
Total Program Cost	164.600			0.000			0.000			6.852			7.322			0.000

1/ The amount identified against this cost element reflects total prior year funding associated with cost elements no longer financed in FY95 and beyond.



CLASSIFICATION:

**UNCLASSIFIED**

<b>BUDGET ITEM JUSTIFICATION SHEET</b>								DATE:				
<b>P-40</b>								<b>FEBRUARY 1998</b>				
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2; OTHER MISSILES</b>							P-1 ITEM NOMENCLATURE <b>AERIAL TARGETS (J2EM)</b>					
Program Element for Code B Items: <b>0604258N, 0605130D, 0604366N</b>							Other Related Program Elements <b>N/A</b>					
	Prior Years	ID Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total
QUANTITY												
COST (In Millions)	\$2390.0	A	\$74.5	\$73.9	\$64.0	\$75.5	\$80.4	\$90.1	\$91.3	\$102.8	Cont.	Cont.
<p>PROGRAM COVERAGE:</p> <p>The Aerial Targets Program provides powered targets, towed targets and necessary Target Auxiliary and Augmentation Systems (TA/AS) equipment for fleet training, and weapons systems test and evaluation. This program is comprised of a series of continuing target production programs.</p> <p>JUSTIFICATION OF BUDGET YEAR REQUIREMENTS:</p> <p>In Fiscal Year 1999, major efforts include the procurement of the AQM-37C/D high altitude supersonic subscale targets, the BQM-74E subsonic subscale targets, the MA-31 supersonic sea skimming targets, the MQM-8G(EER) Vandal targets (converted TALOS missiles), and Foreign Non-Developmental Item (NDI) supersonic and subsonic targets. TA/AS procurements include target command/control equipment, scoring equipment, location and identification equipment, navigation equipment, electronic countermeasures equipment, and active emitter augmentation equipment. The aerial targets and necessary TA/AS equipment provided from this program supports Navy air-to-air and surface-to-air training and weapons systems DT/OT testing.</p>												

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS										B. DATE	
P-5										FEBRUARY 1998	
APPROPRIATION/BUDGET ACTIVITY						P-1 ITEM NOMENCLATURE/SUBHEAD					
WEAPONS PROCUREMENT, NAVY/BA-2 OTHER MISSILES						AERIAL TARGETS/J2EM					
COST CODE	ELEMENT OF COST	IDENT CODE									
			Prior Years Total Cost	FY 1996		FY 1997		FY 1998		FY 1999	
				QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
EM010	BQM-34S	A	\$217,140	0	\$3,409	0	\$2,386	0	\$0	0	\$0
EM020	AQM-37C/D	A	\$119,818	70	\$15,226	110	\$20,802	50	\$10,839	35	\$10,024
EM030	BQM SUBSONIC SUBSCALE	A	\$240,241	149	\$36,663	64	\$30,282	119	\$35,915	135	\$36,461
EM100	TOW TARGETS	A	\$19,837	0	\$0	0	\$0	0	\$0	0	\$0
EM200	OTHER TARGETS	B (1)	\$94,281	6	\$4,266	9	\$7,797	7	\$5,118	11	\$10,841
EM300	TA/AS	A	\$124,674		\$14,949		\$12,595		\$12,121		\$18,148
	VARIOUS (2)		\$1,573,998		\$0		\$0		\$0		\$0
TOTAL			\$2,389,989	225	\$74,513	183	\$73,862	176	\$63,993	181	\$75,474
SPARES (3)											
	BQM-34S		\$570		\$2,478		\$568		\$0		\$0
	AQM-37C/D		\$0		\$0		\$0		\$0		\$0
	BQM SUBSONIC SUBSCALE		\$125		\$0		\$0		\$0		\$210
	TOW TARGETS		\$0		\$0		\$0		\$0		\$0
	OTHER TARGETS		\$405		\$0		\$0		\$0		\$0
	TA/AS		\$156		\$0		\$0		\$298		\$212
	VARIOUS (2)		\$50,331		\$0		\$0		\$0		\$0
TOTAL SPARES			\$51,587		\$2,478		\$568		\$298		\$422
TOTAL PROGRAM			\$2,441,576	225	\$76,991	183	\$74,430	176	\$64,291	181	\$75,896

P-1 SHOPPING LIST

CLASSIFICATION:

ITEM NO. 12

PAGE NO. 2

**UNCLASSIFIED**

(1) See "Other Targets" P-5 for RDT&amp;E and FCT program elements.

(2) The amount identified against this cost element reflects total prior year funding associated with cost elements no longer financed in FY 1995 and beyond.

(3) Initial spares requirements are displayed for information purposes only and are budgeted in Budget Activity 6, Spare and Repair Parts.

UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)

											FEBRUARY 1998		
TARGET SYSTEM: <b>BQM-34S</b>											FISCAL YEAR 1996		
MANUFACTURER: TELEDYNE RYAN, SAN DIEGO, CA											FISCAL YEAR 1997		
COST CODE: EM010 FLYAWAY COST (\$000)											FISCAL YEAR 1998		
											FISCAL YEAR 1999		
	Prior Yrs Total Costs	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
HARDWARE:													
TARGET	\$178,604	0		\$0	0		\$0	0		\$0	0		\$0
GFM (1)	\$5,699			\$0			\$363			\$0			\$0
TECHNICAL DATA PACKAGE	\$0			\$0			\$0			\$0			\$0
INSTALL/MISSION KITS (2)	\$19,834			\$1,208			\$363			\$0			\$0
<b>TOTAL HARDWARE</b>	<b>\$204,137</b>	<b>0</b>		<b>\$1,208</b>	<b>0</b>		<b>\$726</b>	<b>0</b>		<b>\$0</b>	<b>0</b>		<b>\$0</b>
PROCUREMENT SUPPORT (RECURRING):													
CONTRACTOR ENGINEERING	\$0			\$0			\$0			\$0			\$0
GOVERNMENT IN-HOUSE	\$5,535			\$1,050			\$572			\$0			\$0
DOCUMENTATION	\$1,634			\$198			\$36			\$0			\$0
GOVERNMENT TEST	\$982			\$125			\$443			\$0			\$0
OTHER	\$0			\$0			\$0			\$0			\$0
<b>TOTAL RECURRING</b>	<b>\$8,151</b>			<b>\$1,373</b>			<b>\$1,051</b>			<b>\$0</b>			<b>\$0</b>
PROCUREMENT SUPPORT (NONRECURRING):													
PRODUCT IMPROVEMENT	\$0			\$0			\$0			\$0			\$0
SPECIAL TOOLING AND TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
<b>TOTAL NONRECURRING</b>	<b>\$0</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>
<b>TOTAL FLYAWAY</b>	<b>\$212,288</b>	<b>0</b>	<b>\$0</b>	<b>\$2,581</b>	<b>0</b>	<b>\$0</b>	<b>\$1,777</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>
GROUND EQUIPMENT/FLEET SUPPORT COST:													
GROUND EQUIPMENT	\$1,260			\$225			\$275			\$0			\$0
INSTALL & CHECKOUT	\$0			\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$0			\$0			\$0			\$0			\$0
FLEET TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TRAINING DEVICES	\$150			\$75			\$114			\$0			\$0
DOCUMENTATION	\$0			\$0			\$0			\$0			\$0
ILS	\$3,442			\$528			\$220			\$0			\$0
<b>TOTAL GRD EQUIP/FLEET SUP COST</b>	<b>\$4,852</b>			<b>\$828</b>			<b>\$609</b>			<b>\$0</b>			<b>\$0</b>
<b>WEAPONS SYSTEM COST</b>	<b>\$217,140</b>	<b>0</b>	<b>\$0</b>	<b>\$3,409</b>	<b>0</b>	<b>\$0</b>	<b>\$2,386</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>
TARGETS INITIAL SPARES	\$570			\$2,478			\$568			\$0			\$0
<b>TOTAL PROGRAM COST</b>	<b>\$217,710</b>	<b>0</b>	<b>\$0</b>	<b>\$5,887</b>	<b>0</b>	<b>\$0</b>	<b>\$2,954</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>

P-1 SHOPPING LIST

(1) HERO safe cartridge activating devices.  
(2) Kits for SQUIB's.

UNCLASSIFIED

**WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)**

FEBRUARY 1998

TARGET SYSTEM: <b>AQM-37C/D</b>		FISCAL YEAR 1996			FISCAL YEAR 1997			FISCAL YEAR 1998			FISCAL YEAR 1999		
MANUFACTURER: RAYTHEON AIRCRAFT, WICHITA, KS	Prior Yrs	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
COST CODE: EM020	FLYAWAY COST (\$000)												
	Total Cost												
HARDWARE: (1)													
TARGET	\$78,227	70	\$125	\$8,753	110	\$125	\$13,698	50	\$144	\$7,183	35	\$156	\$5,453
GFM-BATTERIES	\$1,366			\$182			\$295			\$145			\$94
GFM-IRFNA (2)	\$2,822			\$273			\$375			\$221			\$146
INSTALL/MISSION KITS	\$11,164			\$715			\$1,212			\$309			\$685
EXTENDED PERFORMANCE KITS (3)	\$4,252			\$0			\$0			\$374			\$800
<b>TOTAL HARDWARE</b>	<b>\$97,831</b>	<b>70</b>	<b>\$142</b>	<b>\$9,923</b>	<b>110</b>	<b>\$142</b>	<b>\$15,580</b>	<b>50</b>	<b>\$165</b>	<b>\$8,232</b>	<b>35</b>	<b>\$205</b>	<b>\$7,178</b>
PROCUREMENT SUPPORT (RECURRING):													
GOVERNMENT IN-HOUSE	\$5,114			\$2,021			\$2,528			\$1,583			\$1,632
DOCUMENTATION	\$1,680			\$424			\$389			\$182			\$281
GOVERNMENT TEST	\$631			\$206			\$1,157			\$109			\$131
<b>TOTAL RECURRING</b>	<b>\$7,425</b>			<b>\$2,651</b>			<b>\$4,074</b>			<b>\$1,874</b>			<b>\$2,044</b>
PROCUREMENT SUPPORT (NONRECURRING):													
PRODUCT IMPROVEMENT (4), (5)	\$10,836		(4)	\$2,318		(5)	\$497			\$545			\$0
SPECIAL TOOLING AND TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
<b>TOTAL NONRECURRING</b>	<b>\$10,836</b>			<b>\$2,318</b>			<b>\$497</b>			<b>\$545</b>			<b>\$0</b>
<b>TOTAL FLYAWAY</b>	<b>\$116,092</b>	<b>70</b>	<b>\$213</b>	<b>\$14,892</b>	<b>110</b>	<b>\$183</b>	<b>\$20,151</b>	<b>50</b>	<b>\$213</b>	<b>\$10,651</b>	<b>35</b>	<b>\$263</b>	<b>\$9,222</b>
GROUND EQUIPMENT/FLEET SUPPORT COST:													
GROUND EQUIPMENT	\$0			\$0			\$0			\$0			\$0
INSTALL & CHECKOUT	\$0			\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$0			\$0			\$0			\$0			\$0
FLEET TEST EQUIPMENT	\$469			\$0			\$0			\$0			\$0
TRAINING DEVICES	\$110			\$29			\$96			\$20			\$31
DOCUMENTATION	\$242			\$0			\$0			\$0			\$395
ILS	\$2,905			\$305			\$555			\$168			\$376
<b>TOTAL GRD EQUIP/FLEET SUP COST</b>	<b>\$3,726</b>			<b>\$334</b>			<b>\$651</b>			<b>\$188</b>			<b>\$802</b>
<b>WEAPONS SYSTEM COST (6)</b>	<b>\$119,818</b>	<b>70</b>	<b>\$218</b>	<b>\$15,226</b>	<b>110</b>	<b>\$189</b>	<b>\$20,802</b>	<b>50</b>	<b>\$217</b>	<b>\$10,839</b>	<b>35</b>	<b>\$286</b>	<b>\$10,024</b>
TARGETS INITIAL SPARES	\$0			\$0			\$0			\$0			\$0
<b>TOTAL PROGRAM COST</b>	<b>\$119,818</b>	<b>70</b>	<b>\$218</b>	<b>\$15,226</b>	<b>110</b>	<b>\$189</b>	<b>\$20,802</b>	<b>50</b>	<b>\$217</b>	<b>\$10,839</b>	<b>35</b>	<b>\$286</b>	<b>\$10,024</b>

P-1 SHOPPING LIST

- (1)

Price increase due to Power Supply ECP.
- (2)

Inhibited Red Fuming Nitric Acid.
- (3)

Extended performance kits are required to perform missions at altitudes from 70,000 to 100,000 feet at velocities from Mach 3 to Mach 4.  
Approximately 20 kits will be procured each year.
- (4)

FY 96 - non-recurring engineering associated with an avionics upgrade (obsolete components no longer commercially available).
- (5)

FY 97 - software changes/power supply/valve.
- (6)

Target buy increased at direction of sponsor.

ITEM NO. 12 PAGE NO. 4

UNCLASSIFIED

UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)											FEBRUARY 1998		
TARGET SYSTEM: BQM SUBSONIC SUBSCALE		FISCAL YEAR 1996			FISCAL YEAR 1997			FISCAL YEAR 1998			FISCAL YEAR 1999		
MANUF: NORTHROP-GRUMMAN	Prior Yrs		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL
COST CODE: EM030 FLYAWAY COST (\$000)	Total Cost	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST
HARDWARE:													
TARGET (1)	\$201,630	149	\$223	\$33,222	64	\$242	\$15,620	119	\$238	\$28,317	135	\$222	\$29,905
INSTALL/MISSION KITS (2)	\$19,569			\$1,087			\$12,393			\$5,451			\$4,319
TOTAL HARDWARE	\$221,199	149	\$240	\$34,309	64	\$438	\$28,013	119	\$284	\$33,768	135	\$254	\$34,224
PROCUREMENT SUPPORT (RECURRING):													
GOVERNMENT IN-HOUSE	\$9,213			\$1,445			\$1,396			\$1,216			\$1,558
DOCUMENTATION	\$1,301			\$114			\$120			\$128			\$171
GOVERNMENT TEST	\$843			\$0			\$360			\$232			\$55
TOTAL RECURRING	\$11,357			\$1,559			\$1,876			\$1,576			\$1,784
PROCUREMENT SUPPORT (NONRECURRING):													
PRODUCT IMPROVEMENT (3)	\$0			\$0			\$0			\$0			\$0
SPECIAL TOOLING AND TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TOTAL NONRECURRING				\$0			\$0			\$0			\$0
TOTAL FLYAWAY	\$232,556	149	\$241	\$35,868	64	\$467	\$29,889	119	\$297	\$35,344	135	\$267	\$36,008
GROUND EQUIPMENT/FLEET SUPPORT COST:													
GROUND EQUIPMENT	\$2,975			\$125			\$154			\$280			\$0
INSTALL & CHECKOUT	\$0			\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$0			\$0			\$0			\$0			\$0
FLEET TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TRAINING DEVICES	\$154			\$33			\$35			\$40			\$36
DOCUMENTATION	\$715			\$283			\$0			\$0			\$0
ILS	\$3,841			\$354			\$204			\$251			\$417
TOTAL GRD EQUIP/FLEET SUP COST	\$7,685			\$795			\$393			\$571			\$453
WEAPONS SYSTEM COST	\$240,241	149	\$246	\$36,663	64	\$473	\$30,282	119	\$302	\$35,915	135	\$270	\$36,461
TARGETS INITIAL SPARES	\$125			\$0			\$0			\$0			\$210
TOTAL PROGRAM COST	\$240,366	149	\$246	\$36,663	64	\$473	\$30,282	119	\$302	\$35,915	135	\$272	\$36,671

P-1 SHOPPING LIST

ITEM NO.

12 PAGE NO. 5

- (1) Includes FY96 contract and additional units procured on FY97 contract
- (2) Fiscal Year 1997, includes emergent OSPREY rqmt (\$5,350) and FY 97 Kit buy (\$5,769)
- (3) Programmatic decision not to do ECP based on new competition for SSAT.

UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)											FEBRUARY 1998		
TARGET SYSTEM: TOW TARGETS		FISCAL YEAR 1996			FISCAL YEAR 1997			FISCAL YEAR 1998			FISCAL YEAR 1999		
MANUFACTURER: VARIOUS	Prior Yrs	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
COST CODE: EM100 FLYAWAY COST (\$000)	Total Cost												
HARDWARE:													
TDU-32 BANNER SERIES	\$3,604			\$0			\$0			\$0			\$0
TDU-34	\$1,318			\$0			\$0			\$0			\$0
TA/AS MISSION SETS	\$1,458			\$0			\$0			\$0			\$0
TOTAL HARDWARE	\$6,380			\$0			\$0			\$0			\$0
PROCUREMENT SUPPORT (RECURRING):													
GOVERNMENT IN-HOUSE	\$7,185			\$0			\$0			\$0			\$0
DOCUMENTATION	\$2,007			\$0			\$0			\$0			\$0
GOVERNMENT TEST	\$1,040			\$0			\$0			\$0			\$0
TOTAL RECURRING	\$10,232			\$0			\$0			\$0			\$0
PROCUREMENT SUPPORT (NONRECURRING):													
PRODUCT IMPROVEMENT	\$0			\$0			\$0			\$0			\$0
TOOLING	\$0			\$0			\$0			\$0			\$0
TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TOTAL NONRECURRING	\$0			\$0			\$0			\$0			\$0
TOTAL FLYAWAY	\$16,612			\$0			\$0			\$0			\$0
GROUND EQUIPMENT/FLEET SUPPORT COST:													
GROUND EQUIPMENT	\$193			\$0			\$0			\$0			\$0
INSTALL & CHECKOUT	\$0			\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$200			\$0			\$0			\$0			\$0
TOOLING	\$0			\$0			\$0			\$0			\$0
TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TRAINING DEVICES	\$251			\$0			\$0			\$0			\$0
DOCUMENTATION	\$0			\$0			\$0			\$0			\$0
ILS	\$2,581			\$0			\$0			\$0			\$0
TOTAL GRD EQUIP/FLEET SUP COST	\$3,225			\$0			\$0			\$0			\$0
WEAPONS SYSTEM COST	\$19,837			\$0			\$0			\$0			\$0
TARGETS INITIAL SPARES	\$0			\$0			\$0			\$0			\$0
TOTAL PROGRAM COST	\$19,837			\$0			\$0			\$0			\$0

P-1 SHOPPING LIST

UNCLASSIFIED

**WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)**

FEBRUARY 1998

TARGET SYSTEM: OTHER TARGETS MANUF: VARIOUS COST CODE: EM200 FLYAWAY COST (\$000)		FISCAL YEAR 1996			FISCAL YEAR 1997			FISCAL YEAR 1998			FISCAL YEAR 1999			
		Prior Yrs Total Cost	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
HARDWARE:														
MQM-8G(EER) VANDAL (1)		\$64,766	6	\$434	\$2,604	0		\$0	6	\$508	\$3,046	0		\$0
MA-31 (2)		\$0	0		\$0	9	\$849	\$7,643	0		\$0	6	\$397	\$2,382
SM-2 TARGET (3)		\$0	0		\$0	0		\$0	0		\$0	0		\$0
ANTI SHIP CRUISE MISSILE - SUBSONIC (4)		\$0	0		\$0	0		\$0	0		\$0	0		\$0
FOREIGN NDI - SUPERSONIC		\$0	0		\$0	0		\$0	1	\$1,951	\$1,951	2	\$1,491	\$2,982
FOREIGN NDI - SUBSONIC		\$0	0		\$0	0		\$0	0		\$0	3	\$1,491	\$4,473
ANCILLARY EQUIP		\$2,107			\$396			\$0			\$0			\$0
QF-4N		\$6,735												
TOTAL HARDWARE		\$73,608	6	\$500	\$3,000	9	\$849	\$7,643	7	\$714	\$4,997	11	\$894	\$9,837
PROCUREMENT SUPPORT (RECURRING):														
GOVERNMENT IN-HOUSE		\$7,856			\$649			\$0			\$121			\$679
DOCUMENTATION		\$1,000			\$0			\$0			\$0			\$39
GOVERNMENT TEST		\$0			\$300			\$0			\$0			\$0
TOTAL RECURRING		\$8,856			\$949			\$0			\$121			\$718
PROCUREMENT SUPPORT (NONRECURRING):														
PRODUCT IMPROVEMENT		\$3,726			\$0			\$0			\$0			\$0
CONTRACTOR ENGINEERING		\$1,435			\$0			\$0			\$0			\$0
TOOLING		\$0			\$0			\$0			\$0			\$0
TEST EQUIPMENT		\$0			\$0			\$0			\$0			\$0
TOTAL NONRECURRING		\$5,161			\$0			\$0			\$0			\$0
TOTAL FLYAWAY		\$87,625	6	\$658	\$3,949	9		\$7,643	7		\$5,118	11		\$10,555
GROUND EQUIPMENT/FLEET SUPPORT COST:														
GROUND EQUIPMENT		\$2,105			\$0			\$0			\$0			\$0
INSTALL & CHECKOUT		\$0			\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT		\$0			\$0			\$0			\$0			\$0
TOOLING		\$0			\$0			\$0			\$0			\$0
TEST EQUIPMENT		\$630			\$0			\$154			\$0			\$286
TRAINING DEVICES		\$0			\$64			\$0			\$0			\$0
DOCUMENTATION		\$1,665			\$0			\$0			\$0			\$0
ILS		\$2,256			\$253			\$0			\$0			\$0
TOTAL GRD EQUIP/FLEET SUP COST		\$6,656			\$317			\$154			\$0			\$286
WEAPONS SYSTEM COST		\$94,281	6	\$711	\$4,266	9		\$7,797	7		\$5,118	11		\$10,841
TARGETS INITIAL SPARES		\$405			\$0			\$0			\$0			\$0
TOTAL PROGRAM COST		\$94,686	6	\$711	\$4,266	9		\$7,797	7		\$5,118	11		\$10,841

P-1 SHOPPING LIST

- (1) MQM-8G(EER) VANDAL Unit Price for FY 98 increase due to the incorporation of both the Inerti:ITEM NO. Unit (IMU) and the Global Positioning System (GPS) (A Reliability Improvement)
- (2) MA-31 RDT&E PE 0604258N and FCT PE 0605130D.
- (3) SM-2 Target RDT&E PE 0604258N and PE 0604366N.
- (4) Formerly called the HARPOON Target.

12 PAGE NO. 7

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)

FEBRUARY 1998

TARGET SYSTEM: TA/AS		FISCAL YEAR 1996			FISCAL YEAR 1997			FISCAL YEAR 1998			FISCAL YEAR 1999		
MANUFACTURER: VARIOUS	Prior Yrs		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL		UNIT	TOTAL
COST CODE: EM300 FLYAWAY COST (\$000)	Total Cost	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST	QTY	COST	COST
HARDWARE:													
CDM/CONTROL EQUIPMENT	\$24,707			\$1,632			\$510			\$0			\$4,306
SCORING EQUIPMENT	\$11,880			\$2,405			\$1,860			\$2,152			\$2,084
LOCATION/ID EQUIP	\$10,698			\$298			\$294			\$1,604			\$1,760
ECM/EMITTER EQUIP	\$27,290			\$4,550			\$4,269			\$3,336			\$4,644
AUGMENT/NAVIGAT EQUIP	\$6,926			\$305			\$853			\$868			\$407
INSTALL/MISSION EQUIP	\$0			\$495			\$508			\$519			\$535
MOBILE SEA RANGE	\$12,598			\$270			\$0			\$0			\$0
TOTAL HARDWARE	\$94,099			\$9,955			\$8,294			\$8,479			\$13,736
PROCUREMENT SUPPORT (RECURRING):													
GOVERNMENT IN-HOUSE	\$17,228			\$3,034			\$3,080			\$2,558			\$3,154
DOCUMENTATION	\$0			\$12			\$87			\$0			\$0
GOVERNMENT TEST	\$0			\$164			\$112			\$0			\$0
TOTAL RECURRING	\$17,228			\$3,210			\$3,279			\$2,558			\$3,154
PROCUREMENT SUPPORT (NONRECURRING):													
PRODUCT IMPROVEMENT	\$1,300			\$0			\$0			\$0			\$0
TOOLING	\$0			\$0			\$0			\$0			\$0
TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TOTAL NONRECURRING	\$1,300			\$0			\$0			\$0			\$0
TOTAL FLYAWAY	\$112,627			\$13,165			\$11,573			\$11,037			\$16,890
GROUND EQUIPMENT/FLEET SUPPORT COST:													
GROUND EQUIPMENT	\$143			\$345			\$0			\$0			\$0
INSTALL & CHECKOUT	\$917			\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TOOLING	\$0			\$0			\$0			\$0			\$0
TEST EQUIPMENT	\$1,557			\$445			\$0			\$0			\$0
TRAINING DEVICES	\$336			\$68			\$15			\$25			\$25
DOCUMENTATION	\$0			\$0			\$0			\$0			\$0
ILS	\$9,094			\$926			\$1,007			\$1,059			\$1,233
TOTAL GRD EQUIP/FLEET SUP COST	\$12,047			\$1,784			\$1,022			\$1,084			\$1,258
WEAPONS SYSTEM COST	\$124,674			\$14,949			\$12,595			\$12,121			\$18,148
TARGETS INITIAL SPARES	\$156			\$0			\$0			\$298			\$212
TOTAL PROGRAM COST	\$124,830			\$14,949			\$12,595			\$12,419			\$18,360

P-1 SHOPPING LIST



CLASSIFICATION:

**UNCLASSIFIED****BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)****A. DATE****February 1998****B. APPROPRIATION/BUDGET ACTIVITY****Weapons Procurement, Navy/2; Other Missiles****C. P-1 ITEM NOMENCLATURE****SUBHEAD****AERIAL TARGETS****J2EM**

Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
AQM-37C/FY-96	70	125	NAVAIR	8 DEC 94	C/Option	Raytheon A/C, Wichita, KS	FEB 96	JUN 97		
AQM-37C/FY-97	110	125	NAVAIR		C/Option	Raytheon A/C, Wichita, KS	FEB 97	JUN 98		
AQM-37C/FY-98	50	144(1)	NAVAIR		C/Option	Raytheon A/C, Wichita, KS	DEC 97	JUN 99	Yes	
AQM-37D/FY-99 (2)	35	156	NAVAIR		SS/FP	Raytheon A/C, Wichita, KS	FEB 99	JUN 00	Yes	MAY 98
BQM-74E/FY-96	120	218	NAVAIR	1 APR 95	C/FP	Northrop-Grumman, Hawthorne, CA	APR 96	JUL 97		
BQM-74E/FY-96 (3)	29	242	NAVAIR		C/Option	Northrop-Grumman, Hawthorne, CA	MAR 97	JUN 98		
BQM-74E/FY-97	64	242	NAVAIR		C/Option	Northrop-Grumman, Hawthorne, CA	MAR 97	JUN 98		
BQM-74E/FY-98	119	238	NAVAIR		C/Option	Northrop-Grumman, Hawthorne, CA	DEC 97	MAY 99	Yes	
BQM-74E/FY-99	135	222	NAVAIR		C/Option	Northrop-Grumman, Hawthorne, CA	FEB 99	JUN 00	Yes	
MQM-8G(EER)/FY-95	24	393	NAWC, Point Mugu	30 NOV 94	SS/FP	Allied-Signal, Mishawaka, IN	APR 95	MAR 96		
MQM-8G(EER)/FY-96	6	434(4)	NAWC, Point Mugu		SS/Option	Allied-Signal, Mishawaka, IN	JUL 96	OCT 97		
MQM-8G(EER)/FY-98	6	508(5)	NAWC, Point Mugu		SS/FP	Allied-Signal, Mishawaka, IN	FEB 98	MAR 99	Yes	
MA-31/FY-97	9	849	NAVAIR	14 OCT 94	SS/Option(6)	McDonnell Douglas, St. Louis, MO	JUN 97	MAR 98	Yes	
MA-31/FY-99	6	397	NAVAIR		SS/FP	McDonnell Douglas, St. Louis, MO	DEC 98	JUL 99	No	TBD
Foreign NDI-Supersonic/FY-98	1	1,951	NSMA	N/A	FP	CLASSIFIED	FEB 98	NOV98	N/A	
Foreign NDI-Supersonic/FY-99	2	1,491	NSMA		Option	CLASSIFIED	FEB 99	NOV99	N/A	
Foreign NDI-Subsonic/FY-99	3	1,491	NSMA	N/A	FP	CLASSIFIED	FEB 99	NOV99	N/A	

**D. REMARKS**

- (1) Price increase in AQM-37C due to Power Supply ECP
- (2) The FY-99 AQM-37D version will include the updated avionics system (old system will be replaced due to obsolete components).
- (3) Additional units procured on FY 97 contract.
- (4) The MQM-8G(EER) unit price includes the incorporation of the Inertia Measurement Unit (IMU) (a reliability improvement).
- (5) The MQM-8G(EER) unit price includes the incorporation of both the Inertia Measurement Unit (IMU) and Global Positioning System (GPS) (a reliability improvement).
- (6) Option on development contract.

FY 1998/99 BUDGET PRODUCTION SCHEDULE, P-21											DATE FEBRUARY 1998																										
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy/BA-2 - OTHER MISSILES											Weapon System				P-1 ITEM NOMENCLATURE AERIAL TARGETS																						
		Production Rate				Procurement Leadtimes																															
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1			ALT After Oct 1			Initial Mfg PLT		Reorder Mfg PLT		Total	Unit of Measure																	
BQM-34S	TRA, San Diego, CA					6	20	50+												E																	
AQM-37C/D	Raytheon, Wichita, KS					3	10	20							16					E																	
BQM-74E	Northrop-Grumman, Hawth, CA					7-8	20	40-45							16					E																	
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 1997															FISCAL YEAR 1998															B A L
							1996			CALENDAR YEAR 1997												CALENDAR YEAR 1998															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							
BQM-34S/TRA	95	N	65	0	65		6	6	6	6	6	6	6	6	6	5												0									
AQM-37C/RAYTHEON	95	N	88	17	71	8	9	9	9	9	9	9	9															0									
AQM-37C/RAYTHEON	96	N	70	0	70								5	5	6	6	6	6	6	6	6	6	6					0									
AQM-37C/RAYTHEON	96	N/RIK	1	0	1									1														0									
AQM-37C/RAYTHEON	97	N	110	0	110					A														9	9	9	9	74									
AQM-37C/RAYTHEON	98	N	50	0	50													A										50									
AQM-37C/RAYTHEON	98	N/RIK	5	0	5													A										5									
AQM-37D/RAYTHEON	99	N	35	0	35																							35									
BQM-74E/NORTHROP-GRUMMAN	95	N	93	10	83	10	10	10	3	10	10	10	10	10														0									
BQM-74E/NORTHROP-GRUMMAN	96	N	120	0	120										12	12	12	12	12	12	12	12	12	12				0									
BQM-74E/NORTHROP-GRUMMAN	96	N	29	0	29						A													1	3	3	3	19									
BQM-74E/NORTHROP-GRUMMAN	97	N	64	0	64						A													6	6	6	6	40									
BQM-74E/NORTHROP-GRUMMAN	97	AF	1	0	1						A														1			0									
BQM-74E/NORTHROP-GRUMMAN	97	FMS	1	0	1						A													1				0									
BQM-74E/NORTHROP-GRUMMAN	98	N	119	0	119													A										119									
BQM-74E/NORTHROP-GRUMMAN	99	N	135	0	135																							135									
ITEM / MANUFACTURER		F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 1999															FISCAL YEAR 2000															B A L
							1998			CALENDAR YEAR 1999												CALENDAR YEAR 2000															
							O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P							
AQM-37C/RAYTHEON	97	N	110	36	74	9	9	9	9	9	9	10	10																0								
AQM-37C/RAYTHEON	98	N	50	0	50									4	4	4	4	4	5	5	4	4	4	4	4				0								
AQM-37C/RAYTHEON	98	N/RIK	5	0	5									1	1	1	1	1											0								
AQM-37D/RAYTHEON	99	N	35	0	35					A															3	3	3	3	23								
BQM-74E/NORTHROP	96	N	29	10	19	3	3	3	1	3	3	3																	0								
BQM-74E/NORTHROP	97	N	64	24	40	6	6	6	4	6	6	6																	0								
BQM-74E/NORTHROP	98	N	119	0	119								10	10	10	10	10	10	10	10	10	10	10	9					0								
BQM-74E/NORTHROP	99	N	135	0	135					A														11	11	11	11	91									
Remarks:																																					

DD Form 2445, JUL 87 Previous editions are obsolete P-1 SHOPPING LIST  
 311 / 244 ITEM NO 12 PAGE 11 Exhibit P-21 Production Schedule

FY 1998/99 BUDGET PRODUCTION SCHEDULE, P-21							DATE FEBRUARY 1998																				
APPROPRIATION/BUDGET ACTIVITY							Weapon System							P-1 ITEM NOMENCLATURE													
Weapons Procurement, Navy/BA-2 - OTHER MISSILES							AERIAL TARGETS																				
		Production Rate			Procurement Leadtimes																						
Item	Manufacturer's Name and Location					MSR	1-8-5	MAX	ALT Prior to Oct 1		ALT After Oct 1		Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure											
MQM-8G	Allied-Signal, Mishawaka, IN					2	3	4					13			E											
MA-31	McDonnell Douglas, St Louis, MO					N/A	N/A	42+					7			E											
FOREIGN NDI	Foreign Non-Developmental Items					N/A	N/A	N/A					N/A			N/A											

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 1997												FISCAL YEAR 1998												B A L
						1996			CALENDAR YEAR 1997									CALENDAR YEAR 1998												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
						MQM-8G(EER)/ALLIED-SIGNAL	95	N	24	14	10	2	2	2	2	2								3	3					
MQM-8G(EER)/ALLIED-SIGNAL	96	N	6	0	6																							0		
MQM-8G(EER)/ALLIED-SIGNAL	98	N	6	0	6														A									6		
MA-31/MCDONNELL DOUGLAS	97	N	9	0	9								A								1		4				4	0		
MA-31/MCDONNELL DOUGLAS	99	N	6	0	6																							6		
Foreign NDI-Supersonic/Classified	98	N	1	0	1															A								1		
Foreign NDI-Supersonic/Classified	99	N	2	0	2																							2		
Foreign NDI-Subsonic/Classified	99	N	3	0	3																							3		

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 1999												FISCAL YEAR 2000												B A L
						1998			CALENDAR YEAR 1999									CALENDAR YEAR 2000												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
						MQM-8G(EER)/ALLIED-SIGNAL	98	N	6	0	6						3	3												
MA-31/MCDONNELL DOUGLAS	99	N	6	0	6			A						1			2	3										0		
Foreign NDI-Supersonic/Classified	98	N	1	0	1		1																					0		
Foreign NDI-Supersonic/Classified	99	N	2	0	2				A								1			1								0		
Foreign NDI-Subsonic/Classified	99	N	3	0	3				A							1			1		1							0		

Remarks:

CLASSIFICATION:

**UNCLASSIFIED**

<b>Exhibit P-20, Requirements Study</b>			APPROPRIATION/BUDGET ACTIVITY <b>WPN/BA-2 Other Missiles</b>				DATE: <b>FEBRUARY 1998</b>	
P-1 ITEM NOMENCLATURE <b>AQM-37C/D (Aerial Targets)</b>			Admin Leadtime (after Oct1): <b>4 Months</b>			Prod Leadtime : <b>16 Months</b>		
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Buy Summary	70	110	50	35	35	45	65	85
Unit Cost (Vehicle)	.13	.12	.14	.16	.16	.16	.15	.15
Total Cost	\$8.8	\$13.7	\$7.2	\$5.5	\$5.6	\$7.0	\$9.7	\$12.6
<b>Asset Dynamics</b>								
Beginning Asset Position	97	118	122	136	161	142	112	83
Deliveries from all prior year funding	114	94	48					
Deliveries from FY 1997 funding			36	74				
Deliveries from FY 1998 funding				16	34			
Deliveries from FY 1999 funding					12	23		
Deliveries from subsequent years' funding						12	36	52
Other Gains								
Combat Losses/Usage								
Training/Test/Other Losses/Usage	93	90	70	65	65	65	65	65
Disposals/Retirements/Attritions/etc.								
<b>End of Year Asset Position</b>	118	122	136	161	142	112	83	70
Inventory Objective:								
Combatant Shipfill								
Expenditures								
Training & Testing Rqmt								
Depot Maint. Pipeline								
Other-WSPD of DEC 95	140	140	140	140	140	140	140	140
Peacetime Pipeline								
TOTAL Inventory Objective:	140	140	140	140	140	140	140	140
Approved Acquisition Objective	140	140	140	140	140	140	140	140
Other than Training Usage		Actual Training Expenditures						
FY 1997 thru 1/6/98: 23		FY 1997 thru 1/6/98: 52						
FY 1996: 37		FY 1996: 56						
FY 1995: 27		FY 1995: 69						
FY 1994: 22		FY 1994: 92						
FY 1993: 34		FY 1993: 67						
		Remarks:						

**UNCLASSIFIED**

CLASSIFICATION:

**UNCLASSIFIED**

<b>Exhibit P-20, Requirements Study</b>			APPROPRIATION/BUDGET ACTIVITY <b>WPN/BA-2 Other Missiles</b>				DATE: <b>FEBRUARY 1998</b>	
P-1 ITEM NOMENCLATURE <b>BQM-74E (Aerial Targets)</b>			Admin Leadtime (after Oct1): <b>4 Months</b>			Prod Leadtime : <b>16 Months</b>		
	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003
Buy Summary	149	64	119	135	135	155	153	153
Unit Cost (Vehicle)	.22	.24	.24	.22	.23	.22	.23	.23
Total Cost	\$33.2	\$15.6	\$28.3	\$30.0	\$30.6	\$34.6	\$34.8	\$35.8
<b>Asset Dynamics</b>								
Beginning Asset Position	247	247	211	174	128	86	154	177
Deliveries from all prior year funding	157	119	94	19				
Deliveries from FY 1997 funding			24	40				
Deliveries from FY 1998 funding				50	69			
Deliveries from FY 1999 funding					44	91		
Deliveries from subsequent years' funding						132	178	150
Other Gains								
Combat Losses/Usage								
Training/Test/Other Losses/Usage	157	155	155	155	155	155	155	155
Disposals/Retirements/Attritions/etc.								
<b>End of Year Asset Position</b>	247	211	174	128	86	154	177	172
Inventory Objective:								
Combatant Shipfill								
Expenditures								
Training & Testing Rqmt								
Depot Maint. Pipeline								
Other-WSPD of DEC 95	240	240	240	240	240	240	240	240
Peacetime Pipeline								
TOTAL Inventory Objective:	240	240	240	240	240	240	240	240
Approved Acquisition Objective	240	240	240	240	240	240	240	240
Remarks:								
Other than Training Usage	Actual Training Expenditures							
FY 1997 thru 1/6/98: 34	FY 1997 thru 1/6/98: 80							
FY 1996: 36	FY 1996: 117							
FY 1995: 31	FY 1995: 124							
FY 1994: 23	FY 1994: 130							
FY 1993: 34	FY 1993: 127							

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION:

**UNCLASSIFIED**

<b>BUDGET ITEM JUSTIFICATION SHEET</b>								DATE: <b>FEBRUARY 1998</b>				
<b>P-40</b>												
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2; OTHER MISSILES</b>							P-1 ITEM NOMENCLATURE <b>DRONES AND DECOYS (J2DJ)</b>					
Program Element for Code B Items: N/A							Other Related Program Elements N/A					
	Prior Years	ID Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total
QUANTITY												
COST (In Millions)	\$207.9		\$0	\$17.1	\$3	\$3	\$0	\$0	\$0	\$0	\$0	\$225.6
<p>PROGRAM COVERAGE:</p> <p>Funding for Drones and Decoys from FY 1986 through FY 1993 has been used for continued procurements of ADM-141 Tactical Air Launched Decoy (TALD) units, which are non-powered, glide trajectory driven vehicles. The ADM-141 TALD is an expendable of similar size to a 500 pound general purpose bomb, and is carried similarly. After launched from strike aircraft, the ADM-141 TALD uses radar signature augmentation and preprogrammed flight profiles to simulate manned aircraft. Its mission is to deceive and saturate hostile radar controlled air defenses, thus enhancing strike aircraft survivability. Currently, the A-6, F/A-18, F-14 and S-3 are fully qualified to deploy the ADM-141 TALD in both land Based and CV operations. Additionally, an AV-8B/TALD capability is planned.</p> <p>Procurement of an improved TALD, (ITALD), ADM-141C, using FY 1994/95 funds was awarded in September 1996 for a total quantity of 98 ITALDs. A follow-on procurement is planned for approximately 110 ITALDs using FY 1997 funds. The major improvement to this decoy is an engine that will give the decoy a much longer stand-off range.</p> <p>The FY 1998 and FY 1999 budget requests provide funding for production support efforts necessary to support final ITALD deliveries to Navy inventory.</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

UNCLASSIFIED

WEAPON SYSTEM COST ANALYSIS EXHIBIT (P-5)

FEBRUARY 1998

TARGET SYSTEM: ITALD MANUFACTURER: IMI LTD, RATAT HASHARON, IS COST CODE: DJ010 FLYAWAY COST (\$000)	Prior Yrs Total Costs	FISCAL YEAR 96			FISCAL YEAR 97			FISCAL YEAR 98			FISCAL YEAR 99		
		QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST	QTY	UNIT COST	TOTAL COST
HARDWARE:													
ITALD 1/	\$21,220	0		\$0	110	\$140	\$15,400	0		\$0	0		\$0
CONTAINERS	\$200			\$0		\$5	\$275			\$0			\$0
<b>TOTAL HARDWARE</b>	<b>\$21,420</b>	<b>0</b>		<b>\$0</b>	<b>110</b>	<b>\$143</b>	<b>\$15,675</b>	<b>0</b>		<b>\$0</b>	<b>0</b>		<b>\$0</b>
PROCUREMENT SUPPORT (RECURRING):													
CONTRACTOR ENGINEERING	\$403			\$0			\$0			\$0			\$0
GOVERNMENT IN-HOUSE	\$1,370			\$0			\$952			\$292			\$298
DOCUMENTATION	\$85			\$0			\$0			\$0			\$0
GOVERNMENT TEST	\$1,100			\$0			\$500			\$0			\$0
OTHER	\$0			\$0			\$0			\$0			\$0
<b>TOTAL RECURRING</b>	<b>\$2,958</b>			<b>\$0</b>			<b>\$1,452</b>			<b>\$292</b>			<b>\$298</b>
PROCUREMENT SUPPORT (NONRECURRING):													
PRODUCT IMPROVEMENT	\$0			\$0			\$0			\$0			\$0
SPECIAL TOOLING AND TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
<b>TOTAL NONRECURRING</b>	<b>\$0</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>
<b>TOTAL FLYAWAY</b>	<b>\$24,378</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>110</b>	<b>\$156</b>	<b>\$17,127</b>	<b>0</b>	<b>\$0</b>	<b>\$292</b>	<b>0</b>	<b>\$0</b>	<b>\$298</b>
GROUND EQUIPMENT/FLEET SUPPORT COST:													
GROUND EQUIPMENT	\$0			\$0			\$0			\$0			\$0
INSTALL & CHECKOUT	\$0			\$0			\$0			\$0			\$0
SPECIAL HANDLING EQUIPMENT	\$0			\$0			\$0			\$0			\$0
FLEET TEST EQUIPMENT	\$0			\$0			\$0			\$0			\$0
TRAINING DEVICES	\$24			\$0			\$0			\$0			\$0
DOCUMENTATION	\$0			\$0			\$0			\$0			\$0
ILS	\$527			\$0			\$0			\$0			\$0
<b>TOTAL GRD EQUIP/FLEET SUP COST</b>	<b>\$551</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>
<b>WEAPONS SYSTEM COST</b>	<b>\$24,929</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>110</b>	<b>\$156</b>	<b>\$17,127</b>	<b>0</b>	<b>\$0</b>	<b>\$292</b>	<b>0</b>	<b>\$0</b>	<b>\$298</b>
<b>VARIOUS 2/</b>	<b>\$182,967</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>			<b>\$0</b>
INITIAL SPARES	\$0			\$0			\$0			\$0			\$0
<b>TOTAL PROGRAM COST</b>	<b>\$207,896</b>	<b>0</b>	<b>\$0</b>	<b>\$0</b>	<b>110</b>	<b>\$156</b>	<b>\$17,127</b>	<b>0</b>	<b>\$0</b>	<b>\$292</b>	<b>0</b>	<b>\$0</b>	<b>\$298</b>

P-1 SHOPPING LIST

1/ FY-95 funding was used for first article test units.

2/ The amount identified against this cost element reflects total prior year funding associated with cost elements no longer financed in FY 1995 and beyond.

UNCLASSIFIED



CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)								A. DATE <b>February 1998</b>		
B. APPROPRIATION/BUDGET ACTIVITY					C. P-1 ITEM NOMENCLATURE				SUBHEAD	
Weapons Procurement, Navy/BA-2; Other Missiles					DRONES AND DECOYS				J2DJ	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	DATE REVISIONS AVAILABLE
ADM-141C/FY-94	81	195(1)	NAVAIR	15 MAY 96	SS/FP	Israeli Military Industries, Ramat Hasharon, IS	SEP 96	JUL 98	YES	N/A
ADM-141C/FY-95	17	318(1)	NAVAIR		SS/FP	Israeli Military Industries, Ramat Hasharon, IS	SEP 96	MAR 98	YES	N/A
ADM-141C/FY-97	110	140	NAVAIR		SS/FP	Israeli Military Industries, Ramat Hasharon, IS	FEB 98	JUN 99	YES	N/A
D. REMARKS (1) FY-94 and FY-95 contracts were awarded concurrently. FY-95 funding was used for first article test units. The actual unit cost for production vehicles was \$193,116.00										

DD Form 2445, JUL 87 Previous editions are obsolete P-1 SHOPPING LIST  
 311 / 244 ITEM NO. 13    PAGE NO. 4 Exhibit P-21 Production Schedule

CLASSIFICATION: **UNCLASSIFIED**

<b>BUDGET ITEM JUSTIFICATION SHEET</b> <b>P-40</b>						DATE: <b>February 1998</b>					
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA-2</b>						P-1 ITEM NOMENCLATURE <b>OTHER MISSILE SUPPORT/2290</b>					
Program Element for Code B Items: <b>N/A</b>						Other Related Program Elements <b>N/A</b>					
	Prior Years	ID Code	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total
QUANTITY											
COST (In Millions)	N/A	A	<b>\$15.5</b>	<b>\$17.8</b>	<b>\$15.2</b>	<b>\$15.4</b>	<b>\$18.9</b>	<b>\$15.0</b>	<b>\$16.6</b>	<b>N/A</b>	<b>\$114.5</b>

The Vertical Launching System (VLS) is a missile launching system for surface combatants, designed to launch Standard Missile, TOMAHAWK and Vertical Launch ASROC (VLA) weapons. The VLS significantly improves missile capacity, flexibility, multi-mission capability, reaction time and rate of fire and is designed to be adaptable to present and future weapons systems. Present requirements are to provide two 61 cell launchers for 22 TICONDEROGA (CG-47) Class Cruisers beginning with CG-52, one 61 cell launcher for 24 SPRUANCE (DD-963) Class destroyers and one 61 cell and one 29 cell launcher for 57 ARLEIGH BURKE (DDG-51) Class destroyers. A 61 cell launcher consists of eight VLS modules and 61 canisters. Canisters are used as a storage/shipping container for missiles ashore and as the magazine and firing tube aboard ship. In order to support the operating forces, it is necessary to have sufficient encanisterized missiles on hand to fill the logistic pipeline associated with the Combat Logistics Force (CLF) transportation times and mobilization considerations. To accomplish this one canister is required for every VLS missile variant that is procured. In addition, a small percentage of canisters are procured to cover those canisters that are lost, damaged or destroyed. The major portion of the WPN funds is for the procurement of VLS canisters. A small amount of funds is required to provide VLS unique equipment to the weapons stations and to provide ILS for canisters procured with WPN funds. Prior to FY-96, canisters were also funded by SCN and OPN Appropriations.

Evolved SEASPARROW Quad Pack (ESSM/QP) missile is being designed to provide an enhanced ship self defense capability for DDG-51 Flight IIA (DDG 79 and follow) ships. Procurement of ESSM/QP canisters is planned in FY00.

CLASSIFICATION:

**UNCLASSIFIED**

**UNCLASSIFIED**

DD FORM 2446, JUN 86

P-1 SHOPPING LIST

CLASSIFICATION:

ITEM NO. 14

PAGE NO. 2

UNCLASSIFIED

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET PROCUREMENT HISTORY AND PLANNING EXHIBIT (P-5A)						Weapon System		A. DATE		
B. APPROPRIATION/BUDGET ACTIVITY						C. P-1 ITEM NOMENCLATURE			SUBHEAD	
Weapons Procurement, Navy/BA-2						OTHER MISSILE SUPPORT			12FD	
Cost Element/ FISCAL YEAR	QUANTITY	UNIT COST (000)	LOCATION OF PCO	RFP ISSUE DATE	CONTRACT METHOD & TYPE	CONTRACTOR AND LOCATION	AWARD DATE	DATE OF FIRST DELIVERY	SPECS AVAILABLE NOW	IF YES WHEN AVAILABLE
<b>FY 97</b>										
FD005/TYPE I CANISTERS SM-2 MR BLK III/IIIA/IIIB (MK-13)	80	41.7	NAVSEA		C/FP OPT	United Defense FMC/BM MINNEAPOLIS, MN	12/96	10/98	YES	
FD006/ TYPE II CANISTERS SM-2 BLK IV (MK-21 MOD 0)	48	107.3	NAVSEA		C/FP OPT	United Defense FMC/BM MINNEAPOLIS, MN	12/96	10/98	YES	
<b>FY 98</b>										
FD005/TYPE I CANISTERS SM-2 MR BLK III/IIIA/IIIB (MK-13)	72	52.3	NAVSEA	Jan-98	SS	United Defense FMC/BM MINNEAPOLIS, MN	3/98	10/99	YES	
FD006/ TYPE II CANISTERS SM-2 BLK IV (MK-21 MOD 0)	38	135.0	NAVSEA	Jan-98	SS	United Defense FMC/BM MINNEAPOLIS, MN	3/98	10/99	YES	
<b>FY 99</b>										
FD005/TYPE I CANISTERS SM-2 MR BLK III/IIIA/IIIB (MK-13)	70	50.0	NAVSEA		C/FP OPT	United Defense FMC/BM MINNEAPOLIS, MN	1/99	10/00	YES	
FD006/ TYPE II CANISTERS SM-2 BLK IV (MK-21 MOD 0)	45	132.0	NAVSEA		C/FP OPT	United Defense FMC/BM MINNEAPOLIS, MN	1/99	10/00	YES	
<b>D. REMARKS</b>										

FY 1998/99 BUDGET PRODUCTION SCHEDULE, P-21										DATE February 1998	
APPROPRIATION/BUDGET ACTIVITY					Weapon System		P-1 ITEM NOMENCLATURE				
Weapons Procurement, Navy/BA-2							OTHER MISSILE SUPPORT				
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location	MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure	
SM-2 BLK III/IIIA/IIIB	United Defense	120	330	480	3	3	18	18	21	E	
SM-2 BLK IV	Minneapolis, Mn										

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 1997												FISCAL YEAR 1998												B A L
						CALENDAR YEAR 1997												CALENDAR YEAR 1998												
						1996												1996												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
DDG (SCN)	94		276		276	35	35	35	35	34	34	34	34															0		
SM-2 BLK III/IIIA/IIIB	94		64		64	8	8	8	8	8	8	8	8															0		
TOMAHAWK	94		30	12	18	3	3	2	2	2	2	2	2															0		
DDG (SCN)	95		288		288									42	41	41	41	41	41	41								0		
SM-2 BLK III/IIIA/IIIB	95		70		70									10	10	10	10	10	10	10								0		
TOMAHAWK	95		12		12									2	2	2	2	2	1	1								0		
TOMAHAWK	96		50		50																5	5	5	5	5	5	5	5		
SM-2 BLK III/IIIA/IIIB	97		80		80			A																				80		
SM-2 BLK IV (MK-21 MOD 0)	97		48		48			A																				48		
SM-2 BLK III/IIIA/IIIB	98		72		72																							72		
SM-2 BLK IV (MK-21 MOD 0)	98		38		38																							38		

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 1999												FISCAL YEAR 2000												B A L
						CALENDAR YEAR 1999												CALENDAR YEAR 2000												
						1998												1998												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
TOMAHAWK	96		50	45	5	5																							0	
SM-2 BLK III/IIIA/IIIB	97		80		80	7	7	7	7	7	7	7	7	6	6	6	6												0	
SM-2 BLK IV (MK-21 MOD 0)	97		48		48	4	4	4	4	4	4	4	4	4	4	4												0		
SM-2 BLK III/IIIA/IIIB	98		72		72													6	6	6	6	6	6	6	6	6	6	6	0	
SM-2 BLK IV (MK-21 MOD 0)	98		38		38													4	4	3	3	3	3	3	3	3	3	3	0	
SM-2 BLK III/IIIA/IIIB	99		70		70				A																				70	
SM-2 BLK IV (MK-21 MOD 0)	99		45		45				A																				45	

Remarks:

<b>FY 1998/99 BUDGET PRODUCTION SCHEDULE, P-21</b>						DATE February 1998					
APPROPRIATION/BUDGET ACTIVITY						Weapon System					
<b>Weapons Procurement, Navy/BA-2</b>						<b>P-1 ITEM NOMENCLATURE</b>					
						<b>OTHER MISSILE SUPPORT</b>					
		Production Rate			Procurement Leadtimes						
Item	Manufacturer's Name and Location		MSR	1-8-5	MAX	ALT Prior to Oct 1	ALT After Oct 1	Initial Mfg PLT	Reorder Mfg PLT	Total	Unit of Measure
SM-2 BLK III/IIIA/IIIB	United Defense		120	330	480	3	3	18	18	21	E
SM-2 BLK IV	Minneapolis, Mn										

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2001												FISCAL YEAR 2002												B A L
						2000			CALENDAR YEAR 2001									CALENDAR YEAR 2002												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	
SM-2 BLK III/IIIA/IIIB	99		70		70	6	6	6	6	6	6	6	6	6	5	5													0	
SM-2 BLK IV (MK-21 MOD 0)	99		45		45	4	4	4	4	4	4	4	4	4	3	3	3												0	

ITEM / MANUFACTURER	F Y	S V C	Q T Y	D E L	B A L	FISCAL YEAR 2003												FISCAL YEAR 2004												B A L
						2002			CALENDAR YEAR 2003									CALENDAR YEAR 2004												
						O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	O C T	N O V	D E C	J A N	F E B	M A R	A P R	M A Y	J U N	J U L	A U G	S E P	

Remarks:

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: <b>February 1998</b>				
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b>							P-1 ITEM NOMENCLATURE <b>TOMAHAWK MODS (J2DN)(PEO(CU)) (BLI: 230100)</b>					
Program Element for Code B Items: <b>BA2/Other Missiles</b>							Other Related Program Elements					
	Prior Years	ID Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total
QUANTITY												
COST (In Millions)	<b>\$157.5</b>	N/A	<b>\$45.6</b>	<b>\$8.1</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>\$0.0</b>	<b>N/A</b>	<b>\$211.2</b>
Funds are required to procure modifications for the Tomahawk Cruise Missiles. The modifications will be installed on a "turnkey" basis during the normal recertification cycle of each missile at contractor depot facilities. As a result, installation costs are not priced separately from the hardware costs in this line.												

CLASSIFICATION:

**UNCLASSIFIED**



**UNCLASSIFIED**

## DATE: \_\_\_\_\_

## February 1998

APPROPRIATION/BUDGET ACTIVITY

## P-1 ITEM NOMENCLATURE

## Weapons Procurement, Navy

[illegible]

## P-1 SHOPPING LIST

**CLASSIFICATION:**

**UNCLASSIFIED**

P3A

INDIVIDUAL MODIFICATION

MODELS OF SYSTEM AFFECTED: R/UGM Land Attack variantsTYPE MODIFICATION: MODIFICATION TITLE: Tomahawk Remanufacture

DESCRIPTION/JUSTIFICATION:

Develop complete, In production.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																								
RDT&E																							0	0.0
PROCUREMENT																								
INSTALLATION KITS	0	140.2	40	17.3	125	45.6	20	8.1	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	185	211.2
INSTALLATION KITS - UNIT COST				0.433		0.365		0.405																N/A
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT																								0.0
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS																								0.0
DATA																								0.0
TRAINING EQUIPMENT																								0.0
SUPPORT EQUIPMENT																								0.0
OTHER																								0.0
OTHER																								0.0
OTHER																								0.0
INTERIM CONTRACTOR SUPPORT																								0.0
INSTALL COST																								0.0
TOTAL PROCUREMENT																								211.2

CLASSIFICATION: UNCLASSIFIED

February 1998

P3A (Continued)

## INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: R/UGM Land Attack variantMODIFICATION TITLE: Tomahawk Remanufacture

## INSTALLATION INFORMATION:

METHOD OF IMPLEMENTATION: Contractor Facilities (Depot)ADMINISTRATIVE LEADTIME: 4PRODUCTION LEADTIME: 13

CONTRACT DATES:

FY 1997:

Feb-97

FY 1998:

N/A

FY 1999:

N/A

DELIVERY DATE:

FY 1997:

Mar-98

FY 1998:

N/A

FY 1999:

N/A

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																								140.2
FY 1995 EQUIPMENT			40	17.3																			40	17.3
FY 1996 EQUIPMENT				*	125	45.6																	125	45.6
FY 1997 EQUIPMENT						*	20	8.1															20	8.1
FY 1998 EQUIPMENT								*																
FY 1999 EQUIPMENT																								
FY 2000 EQUIPMENT																								
FY 2001 EQUIPMENT																								
FY 2002 EQUIPMENT																								
FY 2003 EQUIPMENT																								
TO COMPLETE																							0	0

## \*TURNKEY OPERATION

## INSTALLATION SCHEDULE:

In Out	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	10	10	10	10	32	31	31	31	5	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	185	
Out	0	0	10	10	10	10	32	31	31	31	5	5	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	185	

P-3A

CLASSIFICATION:

**UNCLASSIFIED**

<b>BUDGET ITEM JUSTIFICATION SHEET</b>											<b>DATE:</b>		
<b>P-40</b>											<b>February 1998</b>		
APPROPRIATION/BUDGET ACTIVITY								P-1 ITEM NOMENCLATURE					
<b>Weapons Procurement, Navy/ BA-2 OTHER MISSILES</b>								<b>SPARROW MODIFICATIONS #230400</b>					
Program Element for Code B Items:								Other Related Program Elements					
<b>0604755N</b>								<b>N/A</b>					
	Prior Years	ID Code			FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY													
COST (\$M)		B			\$2.5								\$2.5
Initial Spares (\$M)													
Total (\$M)					\$2.5								\$2.5
Unit Cost (\$M)					N/A								

The Sparrow Modification program provides the U.S. Navy with upgraded air-to-air (AIM-7) and surface-to-air (RIM-7) missiles capable of intercepting extremely low flying antiship missiles. Sparrow Modification funding has been terminated by the Navy starting in FY-98. The FY-97 funding remaining in this line supports the introduction of the Evolved Seasparrow Missile (ESSM).

ESSM will provide an evolved kinematically improved aft-end section for mating, as an all up round, with the modified RIM-7P forebody guidance and warhead section. The ESSM improvement will provide the capability to counter maneuvering anti-ship missiles, expand battle space, and increase system firepower. The ESSM is designed for "quadpack" in the MK41 Vertical Launching System and to be compatible with MK29 trainable launchers for employment in AEGIS, NSSMS, and SSDS ships.

The FY-97 funding provides for ESSM pre-production engineering. Funding for ESSM in FY-98 and out is in line item #230700.

ESSM is a Code "B" Item. Planned date of approval for service use is September 1999. ESSM RDT&E funding is included in Program Element 0604755N, Project U0173.

	<u>FY 1997</u>	<u>FY 1998</u>	<u>FY 1999</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>
ESSM	2,478	0	0	0	0	0	0

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION: UNCLASSIFIED

P3A		INDIVIDUAL MODIFICATION																					
MODELS OF SYSTEM AFFECTED: RIM-7P		TYPE MODIFICATION:		MODIFICATION TITLE: EVOLVED SEASPARROW MISSILE																			
DESCRIPTION/JUSTIFICATION:																							
ESSM will provide an upgraded surface to air missile capable of countering maneuvering anti-ship missiles, expand battle space, and increase system firepower. Funding provides for ESSM pre-production engineering efforts. ESSM funds are budgeted in its own separate Line Item (#230700) starting in FY-98.																							
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: Currently in EMD. Major Milestones: CDR 7/97; LRIP PMR 9/98; OPEVAL 5/99; MS III 9/99																							
FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
QTY \$		QTY \$		QTY \$		QTY \$		QTY \$		QTY \$		QTY \$		QTY \$		QTY \$		QTY \$		QTY \$		QTY \$	
FINANCIAL PLAN (IN MILLIONS)																							
RDT&E																						0 0.0	
PROCUREMENT																							
INSTALLATION KITS																						0 0.0	
INSTALLATION KITS NONRECURRING																						0.0	
EQUIPMENT																						0.0	
EQUIPMENT NONRECURRING																						0.0	
ENGINEERING CHANGE ORDERS																						0.0	
DATA																						0.0	
TRAINING EQUIPMENT																						0.0	
SUPPORT EQUIPMENT																						0.0	
PRE-PRODUCTION ENGINEERING								2,478.0														2,478.0	
OTHER																						0.0	
OTHER																						0.0	
INTERIM CONTRACTOR SUPPORT																						0.0	
INSTALL COST																						0.0	
TOTAL PROCUREMENT								2,478.0														2,478.0	

CLASSIFICATION: UNCLASSIFIED

P3A (Continued) **INDIVIDUAL MODIFICATION (Continued)**

MODELS OF SYSTEMS AFFECTED: RIM-7P MODIFICATION TITLE: EVOLVED SEASPARROW MISSILE

INSTALLATION INFORMATION: **N/A**  
METHOD OF IMPLEMENTATION: \_\_\_\_\_  
ADMINISTRATIVE LEADTIME: \_\_\_\_\_  
CONTRACT DATES: FY 1997: \_\_\_\_\_  
DELIVERY DATE: FY 1997: \_\_\_\_\_

PRODUCTION LEADTIME: \_\_\_\_\_  
FY 1998: \_\_\_\_\_ FY 1999: \_\_\_\_\_  
FY 1998: \_\_\_\_\_ FY 1999: \_\_\_\_\_

(\$ in Millions)																								
Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																								
FY 1995 EQUIPMENT																								
FY 1996 EQUIPMENT																								
FY 1997 EQUIPMENT																								
FY 1998 EQUIPMENT																								
FY 1999 EQUIPMENT																								
FY 2000 EQUIPMENT																								
FY 2001 EQUIPMENT																								
FY 2002 EQUIPMENT																								
FY 2003 EQUIPMENT																								
TO COMPLETE																								

INSTALLATION SCHEDULE: Input=Delivery to the Facility, Output=Facility providing to Fleet, ready for issue

In Out	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4						
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: February 1998																
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b>							P-1 ITEM NOMENCLATURE <b>AIM-9 Sidewinder Mods</b>																				
Program Element for Code B Items:							Other Related Program Elements <b>0207161N</b>																				
	Prior Years	ID Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program															
QUANTITY							75	125	300	300	4,200	5,000															
COST (\$M)	\$29.6	A	\$15.0	\$2.1	\$0.3	\$0.0	\$32.0	\$35.5	\$62.0	\$66.4	\$1,230.0	\$1,472.9															
<p>The AIM-9 Sidewinder short-range air-to-air missile (SRM) is a launch and leave, air combat munition that uses passive infrared (IR) energy for acquisition and tracking of enemy aircraft and complements the Advanced Medium Range Air-to-Air Missile. Air superiority in the SRM arena is essential and includes first shot, first kill opportunity against an enemy employing IR countermeasures.</p> <p>The FY 1996 program procures AIM-9M modifications that provide the technology for an upgrade to the AIM-9M inventory. The Guidance and Control section of the AIM-9M missile will be modified at a government depot and/or contractor facilities. The AIM-9M-8/9 modification program improves the robustness of Counter Counter-Measures (CCM) without changing any basic AIM-9M characteristics. FY 1997 funds the installation of AIM-9M mods and production engineering support. FY 1998 provides funding to complete the installation of the AIM-9M mods.</p> <p>Funds in 2000 and beyond will fund the AIM-9X. The AIM-9X is a long-term evolution to the AIM-9 which provides improvements in missile seeker, fuze, and kinematics which allow retrofit of components to current missiles to the maximum extent possible. Retrofitting of components will extend the operational effectiveness of existing inventories at an affordable cost while continuing evolution of the AIM-9 series.</p> <p>AIM-9X PE 0207161N, E0457</p> <table style="width: 100%; margin-top: 20px;"> <tr> <td style="width: 20%;">AIM-9X Quantities:</td> <td style="width: 15%; text-align: center;"><u>FY 2000</u></td> <td style="width: 15%; text-align: center;"><u>FY 2001</u></td> <td style="width: 15%; text-align: center;"><u>FY 2002</u></td> <td style="width: 15%; text-align: center;"><u>FY 2003</u></td> </tr> <tr> <td style="padding-left: 20px;">Air Force</td> <td style="text-align: center;">75</td> <td style="text-align: center;">125</td> <td style="text-align: center;">300</td> <td style="text-align: center;">300</td> </tr> <tr> <td style="padding-left: 20px;">Navy</td> <td style="text-align: center;">75</td> <td style="text-align: center;">125</td> <td style="text-align: center;">300</td> <td style="text-align: center;">300</td> </tr> </table>													AIM-9X Quantities:	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>	Air Force	75	125	300	300	Navy	75	125	300	300
AIM-9X Quantities:	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	<u>FY 2003</u>																							
Air Force	75	125	300	300																							
Navy	75	125	300	300																							

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION: UNCLASSIFIED

P3A		<b>INDIVIDUAL MODIFICATION</b>																																																																																																																																																																																																																																																																																																																																																							
MODELS OF SYSTEM AFFECTED: <u>AIM-9M</u>				TYPE MODIFICATION: <u>Missile Modification</u>				MODIFICATION TITLE: <u>AIM-9M Product Improvement Program</u>																																																																																																																																																																																																																																																																																																																																																	
DESCRIPTION/JUSTIFICATION: The current AIM-9M Sidewinder does not meet the Infrared Counter-Measures threat environment. This modification program provides the technology for an upgrade to the AIM-9M inventory. The Guidance and Control section of the AIM-9M missile will be modified at a government depot and/or contractor facility. The AIM-9M-8/9 modification program improves the robustness of CCM without changing any basic AIM-9M characteristics.																																																																																																																																																																																																																																																																																																																																																									
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: <u>IN PRODUCTION</u>																																																																																																																																																																																																																																																																																																																																																									
<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th></th> <th colspan="2"><u>FY1995 and Prior</u></th> <th colspan="2"><u>FY 1996</u></th> <th colspan="2"><u>FY 1997</u></th> <th colspan="2"><u>FY 1998</u></th> <th colspan="2"><u>FY 1999</u></th> <th colspan="2"><u>FY 2000</u></th> <th colspan="2"><u>FY 2001</u></th> <th colspan="2"><u>FY 2002</u></th> <th colspan="2"><u>FY 2003</u></th> <th colspan="2"><u>TC</u></th> <th colspan="2"><u>TOTAL</u></th> </tr> <tr> <th></th> <th><u>QTY</u></th> <th><u>\$</u></th> <th><u>QTY</u></th> <th><u>\$</u></th> <th><u>QTY</u></th> <th><u>\$</u></th> <th><u>QTY</u></th> <th><u>\$</u></th> <th><u>QTY</u></th> <th><u>\$</u></th> <th><u>QTY</u></th> <th><u>\$</u></th> <th><u>QTY</u></th> <th><u>\$</u></th> <th><u>QTY</u></th> <th><u>\$</u></th> <th><u>QTY</u></th> <th><u>\$</u></th> <th><u>QTY</u></th> <th><u>\$</u></th> <th><u>QTY</u></th> <th><u>\$</u></th> </tr> </thead> <tbody> <tr> <td>FINANCIAL PLAN (IN MILLIONS)</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td><i>RDT&amp;E</i></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0</td><td>0.0</td> </tr> <tr> <td><i>PROCUREMENT</i></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>INSTALLATION KITS</td> <td>2529</td><td>14.1</td><td></td><td></td><td>1678</td><td>9.1</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>4207</td><td>23.2</td> </tr> <tr> <td>INSTALLATION KITS - UNIT COST</td> <td></td><td>\$0.00</td><td></td><td></td><td></td><td>0.005</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td>INSTALLATION KITS NONRECURRING</td> <td></td><td>0.5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.5</td> </tr> <tr> <td>TRAINING EQUIPMENT</td> <td></td><td>1.1</td><td></td><td></td><td></td><td>0.8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1.9</td> </tr> <tr> <td>GOV'T IN-HOUSE SYS ENGR/TEST</td> <td></td><td>5.2</td><td></td><td></td><td></td><td>3.1</td><td></td><td>0.8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>9.1</td> </tr> <tr> <td>ILS SUPPORT EQUIPMENT</td> <td></td><td>3.0</td><td></td><td></td><td></td><td>1.4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>4.4</td> </tr> <tr> <td>INSTALL COST</td> <td></td><td>5.7</td><td></td><td></td><td></td><td>0.6</td><td></td><td>1.3</td><td></td><td>0.3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>7.9</td> </tr> <tr> <td>TOTAL PROCUREMENT</td> <td></td><td>23.9</td><td></td><td></td><td></td><td>14.4</td><td></td><td>0.8</td><td></td><td>0.0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>39.1</td> </tr> <tr> <td>TOTAL COST</td> <td></td><td>29.6</td><td></td><td></td><td></td><td>15.0</td><td></td><td>2.1</td><td></td><td>0.3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>47.0</td> </tr> </tbody> </table>																									<u>FY1995 and Prior</u>		<u>FY 1996</u>		<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>		<u>FY 2000</u>		<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>		<u>TC</u>		<u>TOTAL</u>			<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	FINANCIAL PLAN (IN MILLIONS)																							<i>RDT&amp;E</i>																					0	0.0	<i>PROCUREMENT</i>																							INSTALLATION KITS	2529	14.1			1678	9.1															4207	23.2	INSTALLATION KITS - UNIT COST		\$0.00				0.005																	INSTALLATION KITS NONRECURRING		0.5																				0.5	TRAINING EQUIPMENT		1.1				0.8																1.9	GOV'T IN-HOUSE SYS ENGR/TEST		5.2				3.1		0.8														9.1	ILS SUPPORT EQUIPMENT		3.0				1.4																4.4	INSTALL COST		5.7				0.6		1.3		0.3												7.9	TOTAL PROCUREMENT		23.9				14.4		0.8		0.0												39.1	TOTAL COST		29.6				15.0		2.1		0.3												47.0
	<u>FY1995 and Prior</u>		<u>FY 1996</u>		<u>FY 1997</u>		<u>FY 1998</u>		<u>FY 1999</u>		<u>FY 2000</u>		<u>FY 2001</u>		<u>FY 2002</u>		<u>FY 2003</u>		<u>TC</u>		<u>TOTAL</u>																																																																																																																																																																																																																																																																																																																																				
	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>	<u>QTY</u>	<u>\$</u>																																																																																																																																																																																																																																																																																																																																			
FINANCIAL PLAN (IN MILLIONS)																																																																																																																																																																																																																																																																																																																																																									
<i>RDT&amp;E</i>																					0	0.0																																																																																																																																																																																																																																																																																																																																			
<i>PROCUREMENT</i>																																																																																																																																																																																																																																																																																																																																																									
INSTALLATION KITS	2529	14.1			1678	9.1															4207	23.2																																																																																																																																																																																																																																																																																																																																			
INSTALLATION KITS - UNIT COST		\$0.00				0.005																																																																																																																																																																																																																																																																																																																																																			
INSTALLATION KITS NONRECURRING		0.5																				0.5																																																																																																																																																																																																																																																																																																																																			
TRAINING EQUIPMENT		1.1				0.8																1.9																																																																																																																																																																																																																																																																																																																																			
GOV'T IN-HOUSE SYS ENGR/TEST		5.2				3.1		0.8														9.1																																																																																																																																																																																																																																																																																																																																			
ILS SUPPORT EQUIPMENT		3.0				1.4																4.4																																																																																																																																																																																																																																																																																																																																			
INSTALL COST		5.7				0.6		1.3		0.3												7.9																																																																																																																																																																																																																																																																																																																																			
TOTAL PROCUREMENT		23.9				14.4		0.8		0.0												39.1																																																																																																																																																																																																																																																																																																																																			
TOTAL COST		29.6				15.0		2.1		0.3												47.0																																																																																																																																																																																																																																																																																																																																			

CLASSIFICATION: UNCLASSIFIED



CLASSIFICATION: **UNCLASSIFIED**

<b>INDIVIDUAL MODIFICATION (Continued)</b>																						
P3A (Continued)																						
MODELS OF SYSTEMS AFFECTED: _____										MODIFICATION TITLE: <b>AIM-9M Product Improvement Program</b>												
INSTALLATION INFORMATION:																						
METHOD OF IMPLEMENTATION: <u>Depot and Weapon Station</u>																						
ADMINISTRATIVE LEADTIME: _____ PRODUCTION LEADTIME: _____ Months																						
CONTRACT DATES: FY 1997: _____ FY 1998: <u>N/A</u> FY 1999: <u>N/A</u>																						
DELIVERY DATE: FY 1997: _____ FY 1998: <u>N/A</u> FY 1999: <u>N/A</u>																						
(\$ in Millions)																						
Cost:	Prior Years		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total	
	Qty	\$	Qty	\$	QTY	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS	2529	5.5																			2529	5.5
FY 1995 EQUIPMENT																						
FY 1996 EQUIPMENT		0.2	439	0.6	981	1.3	258	0.3													1678	#REF!
FY 1997 EQUIPMENT																						
FY 1998 EQUIPMENT																						
FY 1999 EQUIPMENT																						
FY 2000 EQUIPMENT																						
FY 2001 EQUIPMENT																						
FY 2002 EQUIPMENT																						
FY 2003 EQUIPMENT																						
TO COMPLETE																						

INSTALLATION SCHEDULE:																												
	FY 1996 & Prior	FY 1997					FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL #REF! #REF!
		1	2	3	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	2555	112	434	220	120	120	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Out	2529	26	112	434	120	120	120	78	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Note: Input: Induction to Contractor	
Output: Delivery of modified GCS from contractor	

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40											DATE: FEB 1998	
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy/BA2-Other Missiles</b>							P-1 ITEM NOMENCLATURE <b>HARPOON/SLAM MODIFICATION (J2EW) (PEO-CU)</b>					
Program Element for Code B Items: <b>N/A</b>							Other Related Program Elements <b>0604603N</b>					
	Prior Years	ID Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total Program
QUANTITY												
COST (\$M)	\$160.6		\$2.5	\$40.3	\$30.0	\$39.5	\$35.6	\$30.8	\$34.1	\$35.7	\$189.5	\$598.6
<p>MISSION AND DESCRIPTION: The HARPOON/SLAM missile modification program provides funds for Engineering Change Proposals (ECPs) and other improvements to its weapons components which are already in the inventory and requires retrofit activity to produce the SLAM EXPANDED RESPONSE and HARPOON BLK II missile. Additionally, exercise sections are procured to meet fleet training requirements. The SLAM ER missile with the addition of Automatic Target Acquisition (ATA), Automated Mission Planning, Real Time Target Capability, Increased Range and Flight Envelope and Increased Warhead Penetration has matured into a permanent Standoff Outside Area Defense (SOAD) weapon that will remain effective through the year 2015. HARPOON BLK II modification retrofits the integrated global positioning system/inertial navigation system (GPS/INS) from the Joint Direct Attack Missile (JDAM) guidance set. The HARPOON BLK II is designed to meet the current requirements for effectiveness in littoral waters.</p>												
MODIFICATION	Prior Years	FY96	FY97	FY98	FY99	FY00	FY01	FY02	FY03			
CAPSULE	3.068	1.807	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
ENCAPSULATED EX	2.221	0.741	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
SURFACE LAUNCH EX	11.718	0.000	0.042	0.000	0.000	0.000	0.000	0.000	0.000			
AIR LAUNCH EX	1.403	0.000	0.129	0.000	0.000	0.000	0.000	0.000	0.000			
SLAM-ER	0.000	0.000	40.178	30.016	39.506	35.582	28.024	28.441	29.218			
HARPOON BLK 2	0.000	0.000	0.000	0.000	0.000	0.000	2.800	5.700	6.500			
VARIOUS 1/	142.207	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000			
TOTALS	160.617	2.548	40.349	30.016	39.506	35.582	30.824	34.141	35.718			
1/ The amount identified against this cost element reflects total prior year funding associated with cost elements no longer funded in FY 95 and beyond.												

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION: **UNCLASSIFIED**

P3A

INDIVIDUAL MODIFICATION

MODELS OF SYSTEM AFFECTED:

UGM-84C/D

TYPE MODIFICATION:

MODIFICATION TITLE:

CAPSULE

DESCRIPTION/JUSTIFICATION:

Capsule for submarine launched HARPOON-CORROSION corrective actions change-replace non-ready-for-issue or expended capsule assemblies.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

PRODUCTION

	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																								
RD&E																							0	0.0
PROCUREMENT																								
INSTALLATION KITS	5	2.0	2	1.1	7	1.1																	14	4.2
INSTALLATION KITS - UNIT COST				0.550		0.157																		
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT																								0.0
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS																								0.0
DATA																								0.0
TRAINING EQUIPMENT						0.7																		0.7
SUPPORT EQUIPMENT																								0.0
OTHER																								0.0
OTHER																								0.0
OTHER																								0.0
INTERIM CONTRACTOR SUPPORT																								0.0
INSTALL COST		0.0		0.0		0.0								0.0		0.0		0.0		0.0				0.0
TOTAL PROCUREMENT	5	2.0	2	1.1	7	1.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	14	4.9

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION: **UNCLASSIFIED**

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: UGM-84C/D

MODIFICATION TITLE: CAPSULE

INSTALLATION INFORMATION:  
METHOD OF IMPLEMENTATION: \_\_\_\_\_  
ADMINISTRATIVE LEADTIME: 7 Months  
CONTRACT DATES: FY 1997: N/A  
DELIVERY DATE: FY 1997: N/A

PRODUCTION LEADTIME: 24 Months  
FY 1998: N/A  
FY 1998: N/A

FY 1999: N/A  
FY 1999: N/A

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS					5	0.0																	5	0
FY 1995 EQUIPMENT							2	0.0															2	0
FY 1996 EQUIPMENT									7	0.0													7	0
FY 1997 EQUIPMENT																							0	0
FY 1998 EQUIPMENT																							0	0
FY 1999 EQUIPMENT																							0	0
FY 2000 EQUIPMENT																							0	0
FY 2001 EQUIPMENT																							0	0
FY 2002 EQUIPMENT																							0	0
FY 2003 EQUIPMENT																							0	0
TO COMPLETE																							0	0

INSTALLATION SCHEDULE:

	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	5	0	0	2	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Out	5	0	0	2	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
																										0	14

NOTE: INSTALLATIONS ARE INCIDENTAL TO REGULARLY SCHEDULED MISSILE BUILD-UP AT 1 LEVEL. THEREFORE NO INSTALLATION FUNDING REQUIRED.

P-3A

CLASSIFICATION: **UNCLASSIFIED**

P3A

INDIVIDUAL MODIFICATION

MODELS OF SYSTEM AFFECTED:

UGM-84C/D

TYPE MODIFICATION:

MODIFICATION TITLE: ENCAPSULATED HARPOON EXERCISE ROUND

DESCRIPTION/JUSTIFICATION:

Convert sub-launch tactical missiles to fleet exercise/telemetry missiles.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

Procurement/Installation Exercise; No milestones required

	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																								
RDT&E																							0	0.0
PROCUREMENT																								
INSTALLATION KITS	10	1.1	4	1.0	2	0.7																	16	2.8
INSTALLATION KITS - UNIT COST				0.250		0.350																		
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT																								0.0
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS																								0.0
DATA																								0.0
TRAINING EQUIPMENT																								0.0
SUPPORT EQUIPMENT																								0.0
OTHER																								0.0
OTHER																								0.0
OTHER																								0.0
INTERIM CONTRACTOR SUPPORT																								0.0
INSTALL COST		0.1																				0.2		0.3
TOTAL PROCUREMENT	10	1.2	4	1.0	2	0.7	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.2	16	3.1

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: UGM-84C/D

MODIFICATION TITLE: ENCAPSULATED HARPOON EXERCISE ROUND CONVERSION KITS

INSTALLATION INFORMATION:  
METHOD OF IMPLEMENTATION:  
ADMINISTRATIVE LEADTIME: 7 Months

PRODUCTION LEADTIME: 24 Months

CONTRACT DATES: FY 1997: N/A

FY 1998: N/A

FY 1999: N/A

DELIVERY DATE: FY 1997: N/A

FY 1998: N/A

FY 1999: N/A

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete *		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS	6	0.1																			4	0.1	10	0.2
FY 1995 EQUIPMENT																					4	0.1	4	0.1
FY 1996 EQUIPMENT																					2	0.0	2	0.0
FY 1997 EQUIPMENT																								
FY 1998 EQUIPMENT																								
FY 1999 EQUIPMENT																								
FY 2000 EQUIPMENT																								
FY 2001 EQUIPMENT																								
FY 2002 EQUIPMENT																								
FY 2003 EQUIPMENT																								
TO COMPLETE																								

INSTALLATION SCHEDULE:

	FY 1996 & Prior	FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC	TOTAL
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
In	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	16
Out	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	16

\*Actual cost is \$20K per unit.

P-3A

CLASSIFICATION: UNCLASSIFIED

CLASSIFICATION: **UNCLASSIFIED**

P3A		<b>INDIVIDUAL MODIFICATION</b>																						
MODELS OF SYSTEM AFFECTED: <u>RGM-84C/D</u>				TYPE MODIFICATION: _____				MODIFICATION TITLE: <u>SURFACE LAUNCH HARPOON EXERCISE ROUND CONVERSION KITS</u>																
DESCRIPTION/JUSTIFICATION: <div style="border: 1px solid black; padding: 5px; min-height: 60px;">           Capsule for submarine launched HARPOON-CORROSION corrective actions change-replace non-ready-for-issue or expended capsule assemblies.         </div>																								
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:												PROCUREMENT/INSTALLATION EXERCISE; NO MILESTONES REQUIRED												
	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																								
<i>RDT&amp;E</i>																							0	0.0
<i>PROCUREMENT</i>																								
INSTALLATION KITS	34	9.3	3	1.7																15	5.3	52	16.3	
INSTALLATION KITS - UNIT COST				0.567																				
INSTALLATION KITS NONRECURRING																							0.0	
EQUIPMENT																							0.0	
EQUIPMENT NONRECURRING																							0.0	
ENGINEERING CHANGE ORDERS																							0.0	
DATA																							0.0	
TRAINING EQUIPMENT																							0.0	
SUPPORT EQUIPMENT																							0.0	
OTHER																							0.0	
OTHER																							0.0	
OTHER																							0.0	
INTERIM CONTRACTOR SUPPORT																							0.0	
INSTALL COST		0.5		0.2		0.0		0.1													0.4		1.2	
TOTAL PROCUREMENT	34	9.8	3	1.9	0	0	7	0.1	0	0	0	0	0	0	0	0	0	0	0	0	15	5.7	52	17.5

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION: UNCLASSIFIED

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: RGM-84C/D

MODIFICATION TITLE: SURFACE LAUNCH HARPOON EXERCISE ROUND CONVERSION KITS

INSTALLATION INFORMATION:  
METHOD OF IMPLEMENTATION:  
ADMINISTRATIVE LEADTIME: 7 Months

PRODUCTION LEADTIME: 24 Months

CONTRACT DATES: FY 1997: N/A

FY 1998: N/A

FY 1999: N/A

DELIVERY DATE: FY 1997: N/A

FY 1998: N/A

FY 1999: N/A

(\$ in Millions)

Cost:	Prior Years	FY 1995	FY 1996	FY 1997 *	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total		
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$		
PRIOR YEARS	22	0.5	8	0.2	4	0.1						34	0.8	
FY 1995 EQUIPMENT					3	0.0						3	0.0	
FY 1996 EQUIPMENT														
FY 1997 EQUIPMENT														
FY 1998 EQUIPMENT														
FY 1999 EQUIPMENT														
FY 2000 EQUIPMENT														
FY 2001 EQUIPMENT														
FY 2002 EQUIPMENT														
FY 2003 EQUIPMENT														
TO COMPLETE											15	0.4	15	0.4

INSTALLATION SCHEDULE:

	FY 1996 & Prior	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TC	TOTAL
		1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4	1 2 3 4		
In	30	0 0 3 4	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	15	52
Out	30	0 0 3 4	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	15	52

\*Actual cost is \$6K per unit.

P-3A



CLASSIFICATION: **UNCLASSIFIED**

P3A		INDIVIDUAL MODIFICATION																						
MODELS OF SYSTEM AFFECTED:		AGM-84C/D										TYPE MODIFICATION:				MODIFICATION TITLE: AIR LAUNCH HARPOON EXERCISE ROUND MOD KITS								
DESCRIPTION/JUSTIFICATION:																								
Capsule for submarine launched HARPOON-CORROSION corrective actions change-replace non-ready-for-issue or expended capsule assemblies.																								
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:																								
PROCUREMENT/INSTALLATION EXERCISE; NO MILESTONES REQUIRED																								
	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																								
RDT&E																							0	0.0
PROCUREMENT																								
INSTALLATION KITS			6.0	1.4																			6	1.4
INSTALLATION KITS - UNIT COST				0.233																				
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT																								0.0
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS																								0.0
DATA																								0.0
TRAINING EQUIPMENT																								0.0
SUPPORT EQUIPMENT																								0.0
OTHER																								0.0
OTHER																								0.0
OTHER																								0.0
INTERIM CONTRACTOR SUPPORT																								0.0
INSTALL COST								0.1																0.1
TOTAL PROCUREMENT	0	0	6	1.4	0	0		0.1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	1.5

P-1 SHOPPING LIST

CLASSIFICATION:  
**UNCLASSIFIED**

CLASSIFICATION: **UNCLASSIFIED**

P3A (Continued)

### INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: AGM-84C/D

MODIFICATION TITLE: AIR LAUNCH HARPOON EXERCISE ROUND MOD KITS

## INSTALLATION INFORMATION:

**METHOD OF IMPLEMENTATION:**

ADMINISTRATIVE LEADTIME:	7 Months
--------------------------	----------

PRODUCTION LEADTIME: 24 Months

CONTRACT DATES:	FY 1997:	N/A
-----------------	----------	-----

FY 1998: N/A

FY 1999:	N/A
----------	-----

DELIVERY DATE:	FY 1997:	N/A
----------------	----------	-----

FY 1998:	N/A
----------	-----

FY 1999:	N/A
----------	-----

(\$ in Millions)

[illegible]

## INSTALLATION SCHEDULE

[illegible]

P-3A

P-1 SHOPPING LIST

CLASSIFICATION:

ITEM NO. 18 PAGE NO. 9

**UNCLASSIFIED**

CLASSIFICATION: UNCLASSIFIED

P3A

INDIVIDUAL MODIFICATION

MODELS OF SYSTEM AFFECTED:

AGM-84E

TYPE MODIFICATION:

MODIFICATION TITLE:

SLAM EXPANDED RESPONSE (ER)

DESCRIPTION/JUSTIFICATION:

Converts SLAM to SLAM ER configuration, increasing range, accuracy, lethality, and enhances inter-service compatibility.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

PRODUCTION

	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																								
		14.8		62.2		50.8		30.3		28.0		5.2		1.6		3.0		3.1		4.7				203.7
RD&E																								
PROCUREMENT																								
INSTALLATION KITS (1) (2) (3) (4)							60	33.6	42	24.2	54	27.2	56	28.7	38	23.1	38	23.4	38	24.1	299	159.2	625	343.5
								0.560		0.577		0.504		0.513		0.608		0.616		0.634		0.532		
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT								0.3		0.4		1.3												2.0
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS								1.5		0.2		0.4		0.4		0.3		0.3		0.3		2.6		6.0
DATA								1.0		0.3		0.6												1.9
TRAINING EQUIPMENT (Exercise Sections)							10	1.0	0	0.0	7	1.0	5	0.7	0	0.0	0	0.0	0	0.0	27	4.3	49	7.0
SUPPORT EQUIPMENT (Containers)							60	0.8	42	0.4	54	0.6	56	0.7	38	0.5	38	0.5	38	0.5	299	4.0	625	8.0
OTHER (Field Activity Support)								1.9		4.3		4.0		4.1		4.1		4.2		4.3		13.5		40.4
INTERIM CONTRACTOR SUPPORT										0.2		0.2												0.4
INSTALL COST																								0.0
ATA RETROFIT (5)											110	4.2	25	1.0									135	5.2
TOTAL PROCUREMENT	0	0.0	0	0.0	0	0.0	60	40.1	42	30.0	54	39.5	56	35.6	38	28.0	38	28.4	38	29.2	299	183.6	625	414.4

P-1 SHOPPING LIST

CLASSIFICATION:

ITEM NO. 18

PAGE NO. 10

UNCLASSIFIED

Note(s):

(1) Kit consists of GFE SLAM AUR, and CFE components.

(2) Installations costs are included in the Installation Kits line since kit costs and installation are non-severable.

(3) Estimates costs for installation kits/installation of Hardware is effected by concurrent FMS production (Harpoon). FMS assumptions include 95 units in FY 97, and 100 units in FY 98-TC.

(4) SLAM ER Hardware and engineering unaffected by FMS Harpoon quantities (No commonality).

(5) Retrofits required to convert inventory to a single configuration.

CLASSIFICATION: **UNCLASSIFIED**

P3A (Continued) **INDIVIDUAL MODIFICATION (Continued)**

MODELS OF SYSTEMS AFFECTED: AGM-84E MODIFICATION TITLE: SLAM EXPANDED RESPONSE (ER)

INSTALLATION INFORMATION:  
METHOD OF IMPLEMENTATION: \_\_\_\_\_  
ADMINISTRATIVE LEADTIME: 7 Months  
CONTRACT DATES: FY 1997: APR 97  
DELIVERY DATE: FY 1997: APR 98

PRODUCTION LEADTIME: 12 Months  
FY 1998: APR 98 FY 1999: APR 99  
FY 1998: APR 99 FY 1999: APR 00

(\$ in Millions)																								
Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																							0	0
FY 1995 EQUIPMENT																							0	0
FY 1996 EQUIPMENT																							0	0
FY 1997 EQUIPMENT																							0	0
FY 1998 EQUIPMENT																							0	0
FY 1999 EQUIPMENT																							0	0
FY 2000 EQUIPMENT																							0	0
FY 2001 EQUIPMENT																							0	0
FY 2002 EQUIPMENT																							0	0
FY 2003 EQUIPMENT																							0	0
TO COMPLETE																							0	0

INSTALLATION SCHEDULE:																																			
		FY 1996 & Prior		FY 1997				FY 1998				FY 1999				FY 2000				FY 2001				FY 2002				FY 2003				TC		TOTAL	
In	1/	0	0	60	0	0	0	0	42	0	0	0	0	54	0	0	0	0	56	0	0	0	0	38	0	0	0	0	38	0	0	299	625		
Out		0	0	0	0	0	0	0	0	15	15	15	15	11	11	10	10	14	14	13	13	14	14	14	14	10	10	9	9	10	10	355	625		

1/ Input schedule reflects delivery of fleet baseline SLAM missiles to the contractor's site for modification.

CLASSIFICATION: **UNCLASSIFIED**

P3A

INDIVIDUAL MODIFICATION

MODELS OF SYSTEM AFFECTED: RGM-84LTYPE MODIFICATION: MODIFICATION TITLE: HARPOON BLOCK II

DESCRIPTION/JUSTIFICATION:

HARPOON Block II modifies existing missiles to improve missile accuracy in a littoral environment.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES: PRODUCTION

	FY 1994 & Prior		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)																								
RD&E											2.0		2.0		1.0								0	5.0
PROCUREMENT																								
INSTALLATION KITS (1)														44	2.5	110	5.4	146	6.3				300	14.2
INSTALLATION KITS - UNIT COST															0.057		0.049		0.043					
INSTALLATION KITS NONRECURRING																								0.0
EQUIPMENT																								0.0
EQUIPMENT NONRECURRING																								0.0
ENGINEERING CHANGE ORDERS																								0.0
DATA															0.1									0.1
TRAINING EQUIPMENT (Exercise Sections)																	0.1							0.1
SUPPORT EQUIPMENT (Containers)																								0.0
OTHER (Field Activity Support)															0.2		0.2		0.2					0.6
OTHER																								0.0
OTHER																								0.0
INTERIM CONTRACTOR SUPPORT																								0.0
INSTALL COST																								0.0
TOTAL PROCUREMENT	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	44	2.8	110	5.7	146	6.5	0	0.0	300	15.0

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION: **UNCLASSIFIED**

P3A (Continued)

INDIVIDUAL MODIFICATION (Continued)

MODELS OF SYSTEMS AFFECTED: RGM-84L

MODIFICATION TITLE: HARPOON BLK II

INSTALLATION INFORMATION:  
METHOD OF IMPLEMENTATION: \_\_\_\_\_  
ADMINISTRATIVE LEADTIME: 7 months  
CONTRACT DATES: FY 1997: N/A  
DELIVERY DATE: FY 1997: N/A

PRODUCTION LEADTIME: 12 months  
FY 1998: N/A  
FY 1998: N/A  
FY 1999: N/A  
FY 1999: N/A

(\$ in Millions)

Cost:	Prior Years		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		To Complete		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
PRIOR YEARS																							0	0
FY 1995 EQUIPMENT																							0	0
FY 1996 EQUIPMENT																							0	0
FY 1997 EQUIPMENT																							0	0
FY 1998 EQUIPMENT																							0	0
FY 1999 EQUIPMENT																							0	0
FY 2000 EQUIPMENT																							0	0
FY 2001 EQUIPMENT																							0	0
FY 2002 EQUIPMENT																							0	0
FY 2003 EQUIPMENT																							0	0
TO COMPLETE																							0	0

INSTALLATION SCHEDULE:

		<div>FY 1996 &amp; Prior</div>	<div>FY 1997</div>				<div>FY 1998</div>				<div>FY 1999</div>				<div>FY 2000</div>				<div>FY 2001</div>				<div>FY 2002</div>				<div>FY 2003</div>				<div>TC</div>	<div>TOTAL</div>
In	1/	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	0	0	0	110	0	0	0	146	0	0	0	
Out		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11	11	11	28	28	28	28	200		

1/ Input schedule reflects delivery of fleet baseline Harpoon missile to the contractor's site for modification.

P-3A

P-1 SHOPPING LIST

CLASSIFICATION:

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET								DATE: FEBRUARY 1998																																									
P-40																																																	
APPROPRIATION/BUDGET ACTIVITY								P-1 ITEM NOMENCLATURE																																									
Weapons Procurement, Navy/BA-2								STANDARD MISSILES MODIFICATION (12FK) BLI:235600																																									
Program Element for Code B Items:								Other Related Program Elements																																									
	Prior Years	ID Code	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total																																				
QUANTITY																																																	
COST (In Millions)			N/A	N/A	\$16.9	\$49.7	\$45.3	\$43.9	\$52.3	\$49.2	\$50.9		\$308.2																																				
<p>PROGRAM OVERVIEW: The Standard Missile Modification Program provides for improvements in operational readiness and electronic counter measures (ECM) performance in the STANDARD Missiles currently deployed. All of these modifications are "turn-key" and do not involve separate install funding. The following modification projects included in this budget are:</p> <table style="width: 100%; margin-top: 20px;"> <thead> <tr> <th></th> <th>FY97</th> <th>FY98</th> <th>FY99</th> <th>FY00</th> <th>FY01</th> <th>FY02</th> <th>FY03</th> <th>TO COMPLETE</th> </tr> </thead> <tbody> <tr> <td>SM-1</td> <td>7,427</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> <td>0</td> </tr> <tr> <td>Missile Homing (WP,N)</td> <td>9,437</td> <td>49,680</td> <td>45,303</td> <td>43,942</td> <td>52,294</td> <td>49,233</td> <td>50,897</td> <td>154,870</td> </tr> <tr> <td>Improvement Program (RDT&amp;E)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>															FY97	FY98	FY99	FY00	FY01	FY02	FY03	TO COMPLETE	SM-1	7,427	0	0	0	0	0	0	0	Missile Homing (WP,N)	9,437	49,680	45,303	43,942	52,294	49,233	50,897	154,870	Improvement Program (RDT&E)								
	FY97	FY98	FY99	FY00	FY01	FY02	FY03	TO COMPLETE																																									
SM-1	7,427	0	0	0	0	0	0	0																																									
Missile Homing (WP,N)	9,437	49,680	45,303	43,942	52,294	49,233	50,897	154,870																																									
Improvement Program (RDT&E)																																																	

**UNCLASSIFIED**

CLASSIFICATION: UNCLASSIFIED

DATE: FEBRUARY 1998

P3A

MODELS OF SYSTEM AFFECTED:

STANDARD Missile RIM-66E (SM-1 Block VI)

TYPE MODIFICATION:

MODIFICATION TITLE:

Low Altitude Improvement

DESCRIPTION/JUSTIFICATION:

The STANDARD Missile Low Altitude Improvements which were approved by SECNAV in PMP 85-02 on 22 May 1986. in SM-1, the modifications are only to the missile with no interface change with the ship. Therefore, the common nomenclature is a letter change to the block number. Specifically, SM-1 Block VIB. Backfit of the initial changes into SM-1 Block VI is by replacement of the electronics assembly in the TDDs by an ORDALT to the guidance section.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
FINANCIAL PLAN (IN MILLIONS)	324		30		0		0		0		0		0		0		0		354	
<i>RDT&amp;E</i>																				
<i>PROCUREMENT</i>																				
INSTALLATION KITS		45659		6897		0		0		0		0		0		0		0		52556
INSTALLATION KITS NONRECURRING		0		0		0		0		0		0		0		0		0		0
EQUIPMENT		0		0		0		0		0		0		0		0		0		0
EQUIPMENT NONRECURRING		0		0		0		0		0		0		0		0		0		0
ENGINEERING CHANGE ORDERS		90		30		0		0		0		0		0		0		0		120
DATA		540		0		0		0		0		0		0		0		0		540
TRAINING EQUIPMENT		1435		0		0		0		0		0		0		0		0		1435
SUPPORT EQUIPMENT		400		0		0		0		0		0		0		0		0		400
OTHER		8004		500		0		0		0		0		0		0		0		8504
OTHER																				
OTHER																				
INTERIM CONTRACTOR SUPPORT																				
INSTALL COST		0		0		0		0		0		0		0		0		0		0
TOTAL PROCUREMENT		56128		7427		0		0		0		0		0		0		0		63555

ITEM

19

PAGE

2

CLASSIFICATION: UNCLASSIFIED



# UNCLASSIFIED

P-3A

Low Altitude Improvement BLK VIB

Date: FEBRUARY 1998

(U) Contract Date: Prior Year: 07/96 Current Year: 02/97 Budget Year: 00 Budget Year +1: 00  
 (U) Production Delivery Date: Prior Year: 11/97 Current Year: 12/98 Budget Year: 00 Budget Year +1: 00  
 (U) Installation Schedule:

	FY1996 & Prior	FY97 1 2 3 4	FY98 1 2 3 4	FY99 1 2 3 4	FY00 1 2 3 4	FY01 1 2 3 4	FY02 1 2 3 4	FY03 1 2 3 4	TOTAL
In		11 20 20 14	10 9 9 9	7 8 8 7					132
Out		9 18 20 18	10 9 9 9	8 8 8 6					132

ITEM: 19

PAGE: 3

UNCLASSIFIED

CLASSIFICATION: UNCLASSIFIED

DATE: FEBRUARY 1998

P3A

MODELS OF SYSTEM AFFECTED:

STANDARD Missile IMR) RIM-66G/H

TYPE MODIFICATION:

MODIFICATION TITLE:

Missile Homing Improvement Program (MHIP)

DESCRIPTION/JUSTIFICATION:

The STANDARD Missile SM-2 is an Integral element of the AEGIS weapon system and provides area defense against air threats. The SM-2 Block IIIB MHIP provides Homing Improvements to SM-2 Blk II/III missiles for operations in a hostile ECM environment. The SM-2 Blk IIIB Modification Kit includes the IR seeker, the MK45 Mod 9 Target Detecting Device (TDD), the Mk125 Warhead, the MK54 S&A Device and an updated Digital Signal Processor (DSP). Additionally, in FY(\*) and outyears, the SM-2 Blk IIIB Modification shall include a regained MK104 Rocket Motor and replacement components for the guidance section and autopilot battery unit to address safety, performance and aging issues in the population of SM-2 Block II/III missiles being upgraded to the SM-2 Block IIIB configuration.

DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:

	FY 1996 & Prior		FY 1997		FY 1998		FY 1999		FY 2000		FY 2001		FY 2002		FY 2003		TC		TOTAL	
	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$	QTY	\$
PLAN (IN MILLIONS)	135		32		71		93		88		109		109		114					
<i>RD&amp;E</i>																				
<i>PROCUREMENT</i>																				
INSTALLATION KITS IIIB	135	49627	32	9437	80	29808	93	27812	88	26365	109	31376	109	29540	114	30538	340	105676	1100	288479
INSTALLATION KITS SLEP		0		0	80	19872	93	17491	88	17577	109	20918	109	19693	114	20359	340	57763	933	173673
INSTALLATION KITS NONRECURRING		0		0		0		0		0		0		0		0				0
EQUIPMENT		0		0		0		0		0		0		0		0				0
EQUIPMENT NONRECURRING		0		0		0		0		0		0		0		0				0
ENGINEERING CHANGE ORDERS		0		0		0		0		0		0		0		0				0
DATA		0		0		0		0		0		0		0		0				0
TRAINING EQUIPMENT		0		0		0		0		0		0		0		0				0
SUPPORT EQUIPMENT		0		0		0		0		0		0		0		0				0
OTHER		0		0		0		0		0		0		0		0				0
OTHER		0		0		0		0		0		0		0		0				0
OTHER		0		0		0		0		0		0		0		0				0
INTERIM CONTRACTOR SUPPORT		0		0		0		0		0		0		0		0				0
INSTALL COST		0		0		0		0		0		0		0		0				0
TOTAL PROCUREMENT		49627		9437		49680		45303		43942		52294		49233		50897	680	163439	2033	462152

ITEM

19

PAGE

4

CLASSIFICATION: UNCLASSIFIED

UNCLASSIFIED

Missile Homing Improvement Program (MHIP) BLK IIIB

Date: FEBRUARY 1998

Method of Implementation: Guidance sections will be reworked at the depots and modified into SM-2 Block IIIB configuration at a rate which will provide a constant workload. The modified sections will then be sent to the contractor All-Up-Round (AUR) facility for integration into the round. SLEP Mods (Starting in FY98) will be incorporated concurrently.

<u>Contract Date:</u>	<u>Prior Year</u>	<u>Current Year</u>	<u>Budget Year</u>	<u>Budget Year +1</u>	<u>Budget Year +2</u>	<u>Budget Year +3</u>	<u>Budget Year +4</u>
SEEKER	4/97	1/98	1/99	1/00	1/01	1/02	1/03
Target Detecting Device (TDD)	6/97	6/98	6/99	6/00	6/01	6/02	6/03
SLEP/GC&A	4/97	1/98	1/99	1/00	1/01	1/02	1/03
MK125 Warhead	4/97	4/98	4/99	4/00	4/01	4/02	4/03
MK54 Safe and Arm	4/97	3/98	3/99	3/00	3/01	3/02	3/03
SLEP MK104	N/A	3/98	3/99	3/00	3/01	3/02	3/03

<u>Production Delivery Date:</u>	<u>Prior Year</u>	<u>Current Year</u>	<u>Budget Year</u>	<u>Budget Year +1</u>	<u>Budget Year +2</u>	<u>Budget Year +3</u>	<u>Budget Year +4</u>
SEEKER	4/99	1/00	12/00	12/01	12/02	12/03	12/04
Target Detecting Device (TDD)	6/99	10/99	9/00	9/01	9/02	9/03	9/04
SLEP/GC&A	4/99	1/00	12/00	12/01	12/02	12/03	12/04
MK125 Warhead	4/99	10/99	9/00	9/01	9/02	9/03	9/04
MK54 Safe and Arm	4/99	10/99	9/00	9/01	9/02	9/03	9/04
SLEP MK104	N/A	10/99	10/00	10/01	10/02	10/03	10/04

Installation Schedule:

	FY 1997 & PRIOR	FY98				FY99				FY00				FY01				FY02				FY03				TOTAL		
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
IN			8	25	26		26	25	25	11		21	21	21	23		23	27	26	26		24	25	24	24		459	
OUT				25	26			25	26	25	21		12	21	22	23		21	26	27	26		23	26	27	26		459

UNCLASSIFIED

CLASSIFICATION:

**UNCLASSIFIED**

BUDGET ITEM JUSTIFICATION SHEET P-40								DATE: February 1998				
APPROPRIATION/BUDGET ACTIVITY <b>Weapons Procurement, Navy</b>							P-1 ITEM NOMENCLATURE <b>Weapons Industrial Facilities</b>					
Program Element for Code B Items:							Other Related Program Elements					
	Prior Years	ID Code	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	To Complete	Total
QUANTITY												
COST (In Millions)	<b>\$456.7</b>		<b>\$41.8</b>	<b>\$33.4</b>	<b>\$29.8</b>	<b>\$27.1</b>	<b>\$7.9</b>	<b>\$9.0</b>	<b>\$8.6</b>	<b>\$9.3</b>	<b>cont</b>	<b>cont</b>
<p>This line item provides for the Capital Type Rehabilitation projects at government-owned contractor operated plants for weapons systems such as Sparrow, Sea Sparrow, Hawk, Standard, Sidewinder, VLS and Mark 45 Gun Mounts, Phalanx, and rocket motors. Federal Acquisition Regulation Part 52.245-7 specifies that Facilities Use contracts require that the government fund capital type rehabilitation projects to support and maintain these facilities. These plants have an average age of 45 years and lack of proper maintenance will limit capabilities to maintain scheduled production rates and overall productivity. The following estimates are for capital type rehabilitation areas. Funding is separated to reflect environmental, safety, major repair, energy conservation and facilities restoration.</p> <p>- ENVIRONMENTAL: Provides funds to eliminate environmental deficiencies in compliance with local, state, and federal regulations. These regulations mandate requirements which must be met if plant shutdowns, criminal liability, and severe financial penalties are to be avoided.</p> <p>- SAFETY: Provides funds to eliminate safety deficiencies in compliance with local, state, and federal OSHA regulations. These regulations mandate requirements which must be met if plant shutdowns and severe financial penalties are to be avoided.</p> <p>- MAJOR REPAIR: Provides funds for critical upgrades to maintain high liability areas such as fire and security systems, roofs, boilers, electrical distribution systems, bridge crane systems, and other structural repairs essential to maintain the industrial integrity of the plant.</p> <p>- ENERGY CONSERVATION: Provides funds to decrease energy consumption by installing new energy efficient systems and provides increased maintenance on these systems. Mandated in 1993 by Congress.</p> <p>-FACILITIES RESTORATION: Provides funds for replacement of Weapons Industrial Facilities that have exceeded their useful life and deteriorated beyond safe operations.</p>												

P-1 SHOPPING LIST

CLASSIFICATION:

**UNCLASSIFIED**

CLASSIFICATION: **UNCLASSIFIED**

WEAPONS SYSTEM COST ANALYSIS P-5						Weapon System								DATE: February 1998	
APPROPRIATION/BUDGET ACTIVITY Weapons Procurement, Navy BA 2 - Other Missiles						ID Code	P-1 ITEM NOMENCLATURE/SUBHEAD  Weapons Industrial Facilities								
COST CODE	ELEMENT OF COST	ID Code	TOTAL COST IN THOUSANDS OF DOLLARS												
			Prior Years	FY 1996			FY 1997			FY 1998			FY 1999		
			Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost	Quantity	Unit Cost	Total Cost
	Capital Type Rehabilitation														
	Environmental														
	(SEA)		1,700			1,000						1,000			3,843
	(AIR)		4,622			2,678									
	Safety														
	(SEA)		2,652			450						475			1,250
	(AIR)		1,298			1,301									
	Major Repairs														
	(SEA)		383			814			705			391			737
	(AIR)		9,836			2,556									
	Energy Conservation														
	(SEA)		2,200			2,315						850			590
	Closure Costs														
	NWIRP, McGregor (AIR)					721			2,676			2,044			2,713
	Facilities Restoration (ABL)														
	(SEA)		28,500			30,000			30,000			25,000			18,000
	Prior Years		405,590												
	TOTAL Weapons Industrial Facilities														
	(SEA)		35,435			34,579			30,705			27,716			24,420
	(AIR)		15,756			7,256			2,676			2,044			2,713
			456,781			41,835			33,381			29,760			27,133

BUDGET ITEM JUSTIFICATION SHEET										DATE January 1994		
APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY/BA-2 OTHER MISSILES								P-1 ITEM NOMENCLATURE FLEET SATELLITE COMMUNICATIONS (A)		SUBHEAD Q2EU		
	PY	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999	FY 2000	FY 2001	FY 2002	FY 2003	TO COMP	TOTAL
QUANTITY												
COST (in millions)	\$ 1,499.7		\$87.4	\$110.1								
<p>The Fleet Satellite Communications (FLTSATCOM) System satisfies Department of Defense (DOD) worldwide Ultra High Frequency (UHF) mobile user communication requirements. This includes protected fleet broadcast to all Navy ships plus command control for Anti-Submarine Warfare platforms, fleet Ballistic Missile submarines, aircraft carriers, cruisers and other selected aircraft, ships and submarines. The system satisfies the Air Force equatorial satellite communications requirements including Presidential airborne command post, Strategic Air Command and emergency mission support. Existing fleet Satellite (FLTSAT) will continue to be used as long as their performance is operationally acceptable. UHF/FO satellites are being deployed to replace the aging FLTSAT/LEASAT constellation.</p> <p>FY 1996 and FY1997 funded launch service payments for satellites #7 through #9 and provide technical support for satellite production. FY96 and FY97 also funded the Global Broadcast System (GBS) ECP to F8, F9 and F10.</p> <p>The sixth satellite was launched in October 1995 and the seventh satellite was successfully launched in July 1996. F8, F9 and F10 are scheduled to launch in March 1998, September 1998, and February 1999 respectively.</p>												

UNCLASSIFIED  
CLASSIFICATION

COST ANALYSIS											DATE: FEBRUARY 1998			
B. APPROPRIATION/BUDGET ACTIVITY WEAPONS PROCUREMENT, NAVY/BA-2 - OTHER MISSILES							C. P-1 ITEM NOMENCLATURE FLEET SATELLITE COMMUNICATIONS (A)				SUBHEAD Q2EU			
COST CODE	ELEMENT OF COST	IDENT CODE	TOTAL COST IN THOUSANDS OF DOLLARS											
			PY		FY 1995		FY 1996		FY 1997		FY 1998		FY 1999	
			QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST	QTY	TOTAL COST
2000	UHF FOLLOW-ON SPACECRAFT AND LAUNCH			1,411,207				26,467		22,272				
	Global Broadcast Services (GBS)							57,721		86,737				
	ENGINEERING SUPPORT			<u>43,465</u>				<u>3,195</u>		<u>1,064</u>				
	SUBTOTAL			1,454,672				87,383		110,073				
3000	LEASAT SPACECRAFT			45,000										
	TOTAL PROGRAM			1,499,672				87,383		110,073		0		0

MODIFICATION TITLE:  
MODELS OF SYSTEMS AFFECTED:  
DESCRIPTION/JUSTIFICATION:  
DEVELOPMENT STATUS/MAJOR DEVELOPMENT MILESTONES:  
FINANCIAL PLAN: (\$ in millions)

FLEET SATELLITE COMMUNICATIONS (Shore Installations)  
  
The Fleet Satellite Communications (FLTSATCOM) System satisfies DOD worldwide Ultra High Frequency (UHF) mobile user communication requirements. This includes protected fleet broadcast to all Navy ships plus command control for Anti-Submarine Warfare platforms, Fleet Ballistic Missile submarines, aircraft carriers, cruisers and other selected aircraft, ships and submarines, selected aircraft, ships and submarines. The system satisfies Air Force equatorial satellite communications requirements Presidential airborne command post, Strategic Air Command and emergency mission support. UHF/FO satellites are being deployed to replace the aging FLTSAT/LEASAT constellation.  
Install funding is for the installation of ground support equipment.  
Fully developed off the shelf procurement.

	FY		FY 95		FY 96		FY 97		FY 98		FY 99		FY 00		FY 01		FY 02		FY 03		TC		Total	
	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$	Qty	\$
RDT&E																								
PROCUREMENT:																								
Kit Quantity																								
Installation Kits																								
Installation Kits Nonrecurring																								
Equipment	5	11.5																					5	11.5
Equipment Nonrecurring																								
Engineering Change Orders																								
Data																								
Training Equipment																								
Support Equipment																								
Other																								
Intern Contractor Support																								
Installation of Hardware*	5	3.9	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	5	3.9
PRIOR YR EQUIP	5	3.9																					5	3.9
FY 95 EQUIP																							0	0.0
FY 96 EQUIP																							0	0.0
FY 97 EQUIP																							0	0.0
FY 98 EQUIP																							0	0.0
FY 99 EQUIP																							0	0.0
FY 00 EQUIP																							0	0.0
FY 01 EQUIP																							0	0.0
FY 02 EQUIP																							0	0.0
FY 03 EQUIP																							0	0.0
FY TC EQUIP																							0	0.0
TOTAL INSTALLATION COST		3.9		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		3.9
TOTAL PROCUREMENT COST		15.4		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		0.0		15.4

METHOD OF IMPLEMENTATION:

ADMINISTRATIVE LEADTIME:PROCUREMENT LEADTIME:

CONTRACT DATES: FY 1996: FY 1997: FY 1998: FY 1999:

DELIVERY DATES: FY 1996: FY 1997: FY 1998: FY 1999:

INSTALLATION SCHEDULE:	PY	FY 95				FY 96				FY 97				FY 98				FY 99			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
INPUT	5																				
OUTPUT	5																				

INSTALLATION SCHEDULE:		FY 00				FY 01				FY 02				FY 03				TC				TOTAL	
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4		
INPUT																						5	
OUTPUT																						5	



CLASSIFICATION:

**UNCLASSIFIED**

<b>BUDGET ITEM JUSTIFICATION SHEET</b>										<b>DATE:</b>			
<b>P-40</b>										<b>September 1997</b>			
<b>APPROPRIATION/BUDGET ACTIVITY</b> <b>WEAPONS PROCUREMENT, NAVY</b> <b>BA-2: Other Missiles</b>								<b>P-1 ITEM NOMENCLATURE/LINE ITEM #</b> Ordnance Support Equipment 84E3					
<b>Program Element for Code B Items:</b>								<b>OTHER RELATED PROGRM ELEMENTS</b>					
	<b>Prior Years</b>	<b>ID Code</b>	<b>FY 1995</b>	<b>FY 1996</b>	<b>FY 1997</b>	<b>FY 1998</b>	<b>FY 1999</b>	<b>FY 2000</b>	<b>FY 2001</b>	<b>FY 2002</b>	<b>FY 2003</b>	<b>To Complete</b>	<b>Total</b>
<b>QUANTITY</b>													<b>0</b>
<b>EQUIPMENT COST</b> <b>(In Millions)</b>	N/A			<b>\$9.7</b>	<b>\$14.1</b>	<b>\$5.1</b>	<b>\$6.2</b>	<b>\$4.2</b>	<b>\$3.3</b>	<b>\$4.4</b>	<b>\$5.7</b>		<b>\$52.7</b>
<b>SPARES COST</b> <b>(In Millions)</b>													<b>0</b>
<b>PROGRAM DESCRIPTION/JUSTIFICATION:</b>													
No justification materials are submitted in this backup book due to security considerations.													

**UNCLASSIFIED**